

# SAFETY DATA SHEET



Revision Date 04-Dec-2017

SDS Number 888100004477

Revision Number 2

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**Product Name** Asphalt

**Synonyms** Pitch, Paving Asphalt, Performance Graded Asphalt, PG 52-28, PG 58-22, PG 64-25

**Recommended Use** Construction material

**Uses advised against** All others

**Manufacturer**  
Tesoro Refining & Marketing Co.  
19100 Ridgewood Parkway  
San Antonio, TX 78259

**Emergency Telephone** Chemtrec: 1-800-424-9300  
Tesoro Call Center: 1-877-783-7676

**E-mail address** ProductStewardship@TSOCORP.com

## 2. HAZARDS IDENTIFICATION

### Classification

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

Skin Corrosion/Irritation Category	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2

### Label elements

#### Danger

May cause cancer



**Appearance** Solid

**Physical State @20°C** Solid

**Odor** Characteristic sour, tar-like

### **Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection

#### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

Not applicable

#### **Other Information**

May be harmful in contact with skin.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Percent
Asphalt	8052-42-4	0-100
Polycyclic Aromatic Hydrocarbons	130498-29-2	0-<0.1
Hydrogen Sulfide	7783-06-4	0-<0.1

### **4. FIRST AID MEASURES**

#### **Description of first aid measures**

##### **General advice**

Remove from exposure, lie down. In case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt, seek medical advice. Never give anything by mouth to an unconscious person. Take off all contaminated clothing immediately and thoroughly wash material from skin.

##### **Inhalation**

Remove from exposure, lie down. If breathing has stopped, give artificial respiration. Get medical attention immediately. If breathing is difficult, administer oxygen. If symptoms persist, call a physician.

##### **Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately if symptoms occur.

##### **Skin contact**

Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash off immediately with soap and plenty of water for at least 15 minutes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation develops and persists. Note: When using this product in high pressure equipment - Accidental high velocity dermal injection of this material requires immediate medical attention.

##### **Ingestion**

ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

##### **Self-protection of the first aider**

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

#### **Most important symptoms and effects, both acute and delayed**

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

**Note to physicians**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

<b>Small Fire</b>	Any extinguisher suitable for Class B fires, dry chemical, CO <sub>2</sub> , foam (AFFF/ATC), or water spray can be used.
<b>Large Fire</b>	Water spray, fog or alcohol-resistant foam. CAUTION: Use of water spray when fighting fire may be inefficient. Cool containers with flooding quantities of water until well after fire is out.
<b>Unsuitable extinguishing media</b>	Do not use straight streams.
<b>Specific hazards arising from the chemical</b>	Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may form explosive mixture with air. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. May accumulate electrostatic charge and ignite or explode.
<b>Hazardous combustion products</b>	Smoke, CO, and other products of incomplete combustion.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	Yes.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.
<b>Further information</b>	ALWAYS stay away from tanks engulfed in fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Do not direct water at source of leak or safety devices; icing may occur. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

**NFPA**

Health hazards 1

Flammability 1

Stability 0

**Physical and chemical properties -****6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Keep people away from and upwind of spill/leak. Stop leak if you can do it without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Flammable vapor may accumulate to flammable ranges in confined spaces or containers. Monitor area for flammable or explosive atmosphere.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL
Asphalt 8052-42-4	TWA: 0.5 mg/m <sup>3</sup> benzene-soluble aerosol fume, inhalable particulate matter	-
Hydrogen Sulfide 7783-06-4	STEL: 5 ppm TWA: 1 ppm	(vacated) TWA: 10 ppm (vacated) TWA: 14 mg/m <sup>3</sup> (vacated) STEL: 15 ppm (vacated) STEL: 21 mg/m <sup>3</sup> Ceiling: 20 ppm

NOTE: Limits shown for guidance only. For additional information, OSHA's 1989 air contaminants standard exposure limits provided even though the limits were vacated in 1992. State, local or other agencies or advisory groups may have established more stringent limits. Follow applicable regulations.

### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Use goggles or face-shield where there is a possibility of splashing.

**Hand Protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a NIOSH approved respirator when there is a potential for airborne concentrations to exceed occupational exposure limits. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2, NIOSH Respirator Decision Logic, and the respirator manufacturer for additional guidance on respiratory protection selection. A Self-Contained Breathing Apparatus (SCBA) should be used for fire fighting. Use a NIOSH approved positive-pressure supplied air respirator if there is a potential for uncontrolled release, exposure levels are unknown, in oxygen deficient (less than 19.5% oxygen), or any other circumstance where an air-purifying respirator may not provide adequate protection.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical State @20°C	Solid
Appearance	Solid
Odor	Characteristic sour, tar-like
Color	Brown to black solid at ambient temperature, viscous liquid when heated
Odor threshold	No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting point / freezing point	30 – 130 °C / 86 – 149 °F	
Boiling range	> 400 °C	
Flash point	> 230 °C / 446 °F	
Evaporation rate	Negligible	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air %		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	Negligible	
Vapor density	No data available	
Relative density	1.0 – 1.1 g/mL	
Water solubility	No data available	
Solubility in other solvents	No data available	
Partition coefficient	>6	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	No data available	
Explosive properties	No data available	
Oxidizing properties	No data available	
Minimum Ignition Energy (mJ)	No data available	
K <sub>st</sub> (bar.m/s)	No data available	
Softening point	No data available	
VOC Content (%)	No data available	
Density	No data available	
Bulk density	Not applicable	
Conductivity	No data available	

## 10. STABILITY AND REACTIVITY

Reactivity	This product is non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Oxidizing or reducing agents. Acids. Alkali.
Hazardous decomposition products	None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

**Information on toxicological effects**

**Symptoms** No information available.

**Numerical measures of toxicity**

**Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 5,005.00 mg/kg

**ATEmix (dermal)** 2,002.00 mg/kg

Chemical Name	Oral LD50	LD50/dermal/rat - NO UNITS (Wizards mg/kg)	Inhalation LC50
Asphalt 8052-42-4	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	-
Hydrogen Sulfide 7783-06-4	-	-	= 700 mg/m <sup>3</sup> ( Rat ) 4 h

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

**Chemical Name**  
**Hydrogen Sulfide**

Hydrogen Sulfide may be fatal if inhaled. The nervous system and respiratory tract are the main targets of hydrogen sulfide toxicity. Short term (acute) overexposure may cause irritation to the eyes, nose or throat. At high enough levels, effects on the nervous system include headaches, poor concentration, poor memory, unconsciousness, and death. Hydrogen sulfide has a strong odor that is characteristic of rotten eggs; however, the odor is not a reliable warning property as olfactory fatigue occurs at high levels. Respiratory distress or arrest can occur at high concentrations. Direct contact of the liquid with skin can cause frostbite; contact with the eyes can cause redness or severe burns. Cardiovascular effects have also been observed. NIOSH has determined that 100 ppm is immediately dangerous to life and health.

**Health hazard and classification information**

**Skin Corrosion/Irritation Category** No information available.

**Serious eye damage/eye irritation** No information available.

No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Classification based on data available for ingredients. Contains a known or suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Asphalt 8052-42-4	-	Group 2B	-	X

**Reproductive toxicity** No information available.

**Target Organ Systemic Toxicant - Single Exposure** No information available.

**Target Organ Systemic Toxicant -** No information available.

**Repeated Exposure****Target organ effects** Respiratory system, Eyes, Skin.**Aspiration hazard** No information available.**12. ECOLOGICAL INFORMATION****Additional Ecological Information** Release of this product should be prevented from contaminating soil and water and from entering drainage and sewer systems. U.S.A. regulations require reporting spills of this material that could reach any surface waters. The toll free number to the U.S. Coast Guard National Response Center is (800) 424-8802**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrogen Sulfide 7783-06-4	-	0.016: 96 h Pimephales promelas mg/L LC50 flow-through 0.0448: 96 h Lepomis macrochirus mg/L LC50 flow-through	-	0.022: 96 h Gammarus pseudolimnaeus mg/L LC50

**Persistence and degradability** No information available.**Bioaccumulation** There is no data for this product.**Component Information**

Chemical Name	Partition coefficient
Asphalt 8052-42-4	>6
Hydrogen Sulfide 7783-06-4	0.45

**Other adverse effects** No information available.**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.**US EPA Waste Number** U135

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Polycyclic Aromatic Hydrocarbons 130498-29-2	-	Included in waste stream: K022	-	-
Hydrogen Sulfide 7783-06-4	U135	-	-	U135

**14. TRANSPORT INFORMATION**

**DOT**

<b>UN/ID no</b>	UN3257
<b>Proper Shipping Name</b>	ELEVATED TEMPERATURE LIQUID, N.O.S., AT OR ABOVE 100°C (212°F), AND BELOW ITS FLASH POINT
<b>Hazard Class</b>	9
<b>Packing group</b>	III
<b>Special Provisions</b>	IB1, T3, TP3, TP29
<b>Description</b>	UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S. (HYDROGEN SULFIDE), 9, III
<b>Emergency Response Guide Number</b>	128

**TDG**

<b>UN/ID no</b>	UN3257
<b>Proper Shipping Name</b>	ELEVATED TEMPERATURE LIQUID, N.O.S., AT OR ABOVE 100°C (212°F), AND BELOW ITS FLASH POINT
<b>Hazard Class</b>	9
<b>Packing group</b>	III
<b>Description</b>	UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., 9, III

**MEX**

<b>UN/ID no</b>	UN3257
<b>Proper Shipping Name</b>	ELEVATED TEMPERATURE LIQUID, N.O.S., AT OR ABOVE 100°C (212°F), AND BELOW ITS FLASH POINT
<b>Hazard Class</b>	9
<b>Special Provisions</b>	232, 274
<b>Packing group</b>	III
<b>Description</b>	UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S. (Hydrogen sulfide), 9, III

**IATA**

<b>UN/ID no</b>	UN3257
<b>Packing group</b>	III
<b>Description</b>	Forbidden BY PASSENGER AIR Not regulated

**IMDG**

<b>UN/ID no</b>	UN3257
<b>Proper Shipping Name</b>	ELEVATED TEMPERATURE LIQUID, N.O.S., AT OR ABOVE 100°C (212°F), AND BELOW ITS FLASH POINT
<b>Hazard Class</b>	9
<b>Packing group</b>	III
<b>EmS No.</b>	F-A, S-P
<b>Special Provisions</b>	232, 274
<b>Description</b>	UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S. (Hydrogen sulfide), 9, III

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

<b>TSCA</b>	Not Listed
<b>DSL/NDSL</b>	Not Listed
<b>ENCS</b>	Not Listed
<b>IECSC</b>	Not Listed
<b>KECL</b>	Not Listed
<b>PICCS</b>	Not Listed
<b>AICS</b>	Not Listed

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances



## US Federal Regulations

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Polycyclic Aromatic Hydrocarbons 130498-29-2	-	X	-	-
Hydrogen Sulfide 7783-06-4	100 lb	-	-	X

### CERCLA

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

## US State Regulations

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

### US State Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt 8052-42-4	X	X	X
Polycyclic Aromatic Hydrocarbons 130498-29-2	X	-	X
Hydrogen Sulfide 7783-06-4	X	X	X

## **16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

Revision Date 04-Dec-2017

Revision Note No information available.

### Disclaimer

Tesoro Companies, Inc. (Tesoro) provides the information on this Safety Data Sheet (SDS) in order to meet its obligations under 29 CFR 1910.1200, and does not hereby make any guarantee of product specifications or suitability for any particular purpose. Tesoro does not assume any liability arising out of the use of Tesoro's product or the use of information provided on this SDS. The end user of the product has the responsibility for evaluating the adequacy of the

data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all relevant information in the format of this document, since additional information may be necessary under exceptional conditions of use, and since Tesoro prepared this SDS based on information available on the date of its publication.

150, 299, 302, 314, 1367

**End of Safety Data Sheet**