

**SECTION 1: IDENTIFICATION**

**1.1. Product Identifier**

**Product Form:** Substance

**Product Name:** Performance Grade Asphalt

**1.2. Intended Use of the Product**

**Use of the substance/mixture:** Construction Material

**1.3. Name, Address, and Telephone of the Responsible Party**

**Company**

Petro Star Inc  
 3900 C Street  
 Suite 802  
 Anchorage, Alaska 99503-5963  
 907-339-6600

www.petrostar.com

**1.4. Emergency Telephone Number**

**Emergency Number** : 800-633-8253 PERS

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the Substance or Mixture**

**GHS-US classification**

Eye Irrit. 2A H319  
 Carc. 2 H351  
 Asp. Tox. 1 H304

Full text of H-phrases: see section 16

**2.2. Label Elements**

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)**



**Signal Word (GHS-US)**

: Danger

**Hazard Statements (GHS-US)**

: H304 - May be fatal if swallowed and enters airways.  
 H319 - Causes serious eye irritation.  
 H351 - Suspected of causing cancer.

**Precautionary Statements (GHS-US)**

: P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
 P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.  
 P301+P310 - If swallowed: Immediately call a poison center or doctor.  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 - If exposed or concerned: Get medical advice/attention.  
 P331 - Do NOT induce vomiting.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

**2.3. Other Hazards**

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Exposure may aggravate individuals with pre-existing skin, kidney, liver, and pulmonary disorders. Asphalt may contain trace quantities of benzene (< 0.1%). Elevated temperature conditions may emit hydrogen sulfide, an asphalt decomposition product. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can

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be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. **Risk of thermal burns on contact with molten product.**

## 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Name : Performance Grade Asphalt

Name	Product Identifier	%	GHS-US classification
Asphalt	(CAS No) 8052-42-4	100	Carc. 2, H351
Hydrogen sulfide	(CAS No) 7783-06-4	< 0.1	Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400

### 3.2. Mixture

Not applicable

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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

**Symptoms/Injuries:** Suspected of causing cancer. Causes eye irritation. May be fatal if swallowed and enters airways. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation. High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting. Toxic fumes may be generated from heating asphalt and may be harmful if inhaled.

**Symptoms/Injuries After Skin Contact:** May cause skin irritation. Removal of solidified molten material from skin requires medical assistance. Risk of thermal burns on contact with molten product. Where possible allow molten material to solidify naturally.

**Symptoms/Injuries After Eye Contact:** Causes eye irritation. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Ingestion:** May be fatal if swallowed and enters airways. Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** Suspected of causing cancer. Repeated or prolonged inhalation may damage lungs.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical, carbon dioxide, halon, firefighting foam. Water spray and water fog are suitable means for cooling and extinguishment when used with caution. Direct water streams to the surface of hot liquids over 100 C (212 F) can cause product to expand with explosive force.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions. In molten form may react violently with water.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

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**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Use only outdoors or in a well-ventilated area. Do NOT breathe (dust, vapor, mist, gas). Do not allow product to spread into the environment.

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Collect spillage. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** Handle empty containers with care because residual vapours may be flammable. When heated to decomposition, emits toxic fumes. If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas, which can raise and widen this material's actual flammability limits and significantly lower its auto-ignition temperature. Hydrogen sulfide is a toxic gas that can be fatal. It also has a rotten egg smell that causes odor fatigue very quickly and shouldn't be used as an indicator for the presence of gas. Risk of thermal burns on contact with molten product.

**Precautions for Safe Handling:** Use only in well ventilated areas. Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Do not breathe vapors, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

**Storage Conditions:** Keep/Store away from extremely high or low temperatures, ignition sources, direct sunlight, incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers. Do not use water when molten material is involved, may react violently or explosively on contact with water.

### 7.3. Specific End Use(s)

Paving asphalt

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Asphalt (8052-42-4)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen fume, coal tar-free

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<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
<b>Hydrogen sulfide (7783-06-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (ppm)	1 ppm
<b>USA ACGIH</b>	ACGIH STEL (ppm)	5 ppm
<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (ceiling) (ppm)	10 ppm
<b>USA IDLH</b>	US IDLH (ppm)	100 ppm
<b>USA OSHA</b>	OSHA PEL (Ceiling) (ppm)	20 ppm

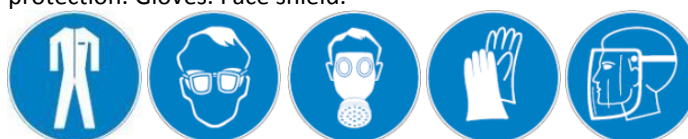
### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

: Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Gloves. Face shield.



#### Materials for Protective Clothing

: Chemically resistant materials and fabrics.

#### Hand Protection

: Wear chemically resistant and heat resistant long cuffed gloves.

#### Eye Protection

: Chemical goggles or safety glasses. Face shield.

#### Skin and Body Protection

: Use heat resistant clothing when handling heated material.

#### Respiratory Protection

: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

#### Other Information

: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Black.solid at ambient temperature, black viscous liquid when heated
Odor	: Tar like
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: > 750 °F (398.89 °C)
Flash Point	: > 445 °F (229.44 °C)
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Specific Gravity	: 1
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

### 9.2. Other Information No additional information available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions. In molten form may react violently with water.
- 10.2. Chemical Stability:** Product is stable.
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

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- 10.4. Conditions to Avoid:** Open flame. Incompatible materials. Heat. Sparks.
- 10.5. Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. When molten: water.
- 10.6. Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). May release flammable gases. Hydrogen sulfide. Toxic gases. Nitrogen oxides.

## 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
LC50 Inhalation Rat	> 94.4 mg/m <sup>3</sup>
Hydrogen sulfide (7783-06-4)	
LC50 Inhalation Rat	444 ppm/4h

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Causes serious eye irritation.

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Suspected of causing cancer.

Asphalt (8052-42-4)	
IARC group	2B
National Toxicology Program (NTP) Status	Twelfth Report - Items under consideration.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation. High concentration of vapours may induce: headache, dizziness, drowsiness, nausea and vomiting. Toxic fumes may be generated from heating asphalt and may be harmful if inhaled.

**Symptoms/Injuries After Skin Contact:** May cause skin irritation. Removal of solidified molten material from skin requires medical assistance. Risk of thermal burns on contact with molten product. Where possible allow molten material to solidify naturally.

**Symptoms/Injuries After Eye Contact:** Causes eye irritation. Risk of thermal burns on contact with molten product.

**Symptoms/Injuries After Ingestion:** May be fatal if swallowed and enters airways. Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** Suspected of causing cancer. Repeated or prolonged inhalation may damage lungs.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Hydrogen sulfide (7783-06-4)	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC 50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

### 12.2. Persistence and Degradability

Performance Grade Asphalt	
Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

Performance Grade Asphalt	
Bioaccumulative Potential	Not established.
Asphalt (8052-42-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	> 6
Hydrogen sulfide (7783-06-4)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	0.45 (at 25 °C)

### 12.4. Mobility in Soil

 No additional information available

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## 12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

**Ecology – Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. In Accordance with DOT

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt)  
Hazard Class : 9  
Identification Number : UN3257  
Label Codes : 9  
Packing Group : III  
ERG Number : 130



### 14.2. In Accordance with IMDG

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt)  
Hazard Class : 9  
Identification Number : UN3257  
Packing Group : III  
Label Codes : 9  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-P



### 14.3. In Accordance with IATA

Proper Shipping Name : ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt)  
Identification Number : UN3257  
Hazard Class : 9  
Label Codes : 9  
ERG Code (IATA) : 9L



## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

<b>Performance Grade Asphalt</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Asphalt (8052-42-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>SARA Section 311/312 Hazard Classes</b>	Delayed (chronic) health hazard
<b>Hydrogen sulfide (7783-06-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on the United States SARA Section 302	
Subject to reporting requirements of United States SARA Section 313	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	500
<b>SARA Section 313 - Emission Reporting</b>	1.0 %

### 15.2 US State Regulations

<b>Hydrogen sulfide (7783-06-4)</b>	
U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Fresh Water	
U.S. - Alaska - Water Quality Standards - Chronic Aquatic Life Criteria for Marine Water	

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 09/02/2015  
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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## GHS Full Text Phrases:

Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Gas 1	Flammable gases Category 1
Liquefied gas	Gases under pressure Liquefied gas
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H304	May be fatal if swallowed and enters airways
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H400	Very toxic to aquatic life

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)