

Material Safety Data Sheet



Section 1 - Product and Company Identification

- Material Name** • PG 64-22 Asphalt-Paving Grade
- Chemical Category** • Mixture
- Product Code** • GAS-6422
- Product Description** • Asphalt/Bitumen
- Product Use** • Road Paving, Other Industrial Applications
- Synonyms** • AC Grade Petroleum Asphalt; PEN Grade Asphalt; PG Paving Grade Asphalt.

Manufacturer • Gardner-Gibson
4161 E. 7th Avenue
Tampa, FL 33605
United States
www.Gardner-Gibson.com

Telephone

- Technical** • 813-248-2101 - Customer Service: 8 AM - 5 PM M-F Eastern Standard Time
- Emergency** • 800-424-9300 - CHEMTREC
- Emergency** • 703-527-3887 - CHEMTREC (Outside US)

Preparation Date • 11/20/2011

Last Revision Date • 6/5/2012

Section 2 - Hazards Identification

Emergency Overview

WARNING

May be harmful if swallowed. May cause respiratory irritation. Causes eye irritation.

Prevention Do not handle until all safety precautions have been read and understood. Harmful if swallowed or if inhaled. May be harmful in contact with skin. Exposure to vapors may cause respiratory tract irritation. Inhalation of vapors or mists may cause central nervous system depression, light-headedness, dizziness, headache, nausea and loss of coordination. This product contains petroleum asphalt. Petroleum asphalt is not listed as a carcinogen by OSHA or NTP. The National Institute of Occupational Safety and Health (NIOSH), has concluded that at higher temperatures roofing asphalt fumes are a potential occupational carcinogen. If this product is heated or comes in contact with heated material, avoid breathing fumes. This product may contain small amounts of polycyclic aromatic hydrocarbons (PAH's) which are recognized carcinogens in humans and experimental animals. Mouse skin painting studies of roofing asphalt vapor concentrate have shown evidence of tumor formation associated with localized skin irritation in recent studies. Inhalation studies of high airborne concentrations of asphalt/bitumen fumes in rats and mice produced bronchitis, pneumonitis, and lung changes such as fibrosis and cell damage.

Response IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.



- Physical Form** • Liquid
- Color** • Black
- Odor** • Mild Hydrocarbon.
- Flash Point** • > 400°F(> 204.44°C) OC (Open Cup)
- OSHA** • Irritant, Carcinogen
- WHMIS** • Other Toxic Effects - D2A
- GHS** • Specific Target Organ Toxicity Single Exposure - Category 3: Respiratory Tract Irritation, Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2, Carcinogenicity - Category 1A

Potential Health Effects

Inhalation

- Acute (Immediate)** • May cause irritation. May be harmful if inhaled.
- Chronic (Delayed)** • Repeated and prolonged exposure may be harmful.

Skin

- Acute (Immediate)** • Normal use of this material can be at elevated temperatures. Contact with hot product will cause severe burns to the skin. May be harmful if absorbed through the skin. May cause irritation.
- Chronic (Delayed)** • Repeated and prolonged exposure may cause dermatitis. May be harmful if absorbed through the skin.

Eye

- Acute (Immediate)** • May cause burning and redness or swelling of the eyes. May cause irritation.
- Chronic (Delayed)** • Repeated and prolonged exposure may cause irritation.

Ingestion

- Acute (Immediate)** • May be harmful or fatal if swallowed.
- Chronic (Delayed)** • Repeated and prolonged exposure may be harmful.

Carcinogenic Effects • See Section 11 - Toxicological Information.

Carcinogenic Effects			
	CAS	IARC	NTP
Asphalt	8052-42-4	Group 2B-Possible Carcinogen Group 3-Not Classifiable	Under Consideration

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

Hazardous Components					
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Asphalt	CAS:8052-42-4 UN:NA1999 EINECS:232-490-9	0% TO 100%	Ingestion/Oral-Rat LD50 \hat{a}^{TM} >5000 mg/kg Inhalation-Rat LC50 \hat{a}^{TM} >94.4 mg/m ³	OSHA:Carc.; Irrit. ANSI:Irrit. WHMIS:Other Toxic Effects - D2A UN GHS:Carc. 2; Eye Irrit. 2A; Skin Irrit. 2	
Hydrogen sulfide	CAS:7783-06-4 EC Number:231-977-3 UN:UN1053 EINECS:231-977-3	< 0.1%	Inhalation-Mouse LC50 \hat{a}^{TM} 634 ppm 1 Hour(s)	OSHA:Comp. Gas; Flam. Gas; Highly Toxic; Irrit. ANSI: WHMIS:Flam. Gas - B1; Other Toxic Effects - D2B; Comp. Gas - A UN GHS:Acute Tox. 2 (Inhalation); Flam. Gas 1; Press. Gas - Comp	

This product is an encapsulated mixture which reduces the likelihood of exposure to hazardous particulates. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

- Inhalation** • Remove to fresh air. Call a physician or poison control center. If not breathing, give artificial respiration.
- Skin** • Wash the contaminated area of body with soap and fresh water. If burned by hot molten materials, cool the product on the skin with water as quickly as possible. Do not attempt to remove the material from the skin. Seek medical attention immediately for removal. Get medical attention if symptoms occur. Remove contaminated clothing and shoes.
- Eye** • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately.
- Ingestion** • Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

- Extinguishing Media** • LARGE FIRES: Water spray, fog or regular foam.
SMALL FIRES: Dry chemical or CO₂.
- Unsuitable Extinguishing Media** • Do not use direct stream of water.
- Firefighting Procedures** • Keep unauthorized personnel away. Stay upwind. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.
- Unusual Fire and Explosion Hazards** • Some of these materials may burn, but none ignite readily. May release irritating or toxic gases, fumes, or vapors.
- Hazardous Combustion Products** • Carbon monoxide, carbon dioxide, hydrocarbons. Sulfur Oxides, Nitrogen Oxides, Hydrogen Sulfide.
- Protection of Firefighters** • Wear positive pressure self-contained breathing apparatus (SCBA).
- Flash Point** • > 400° F(> 204.4444°C) OC (Open Cup)
- Explosion Limits:**
- Upper** • 5 %
- Lower** • .5 %
- Autoignition Temperature** • > 500°F(> 260°C)

Section 6 - Accidental Release Measures

- Personal Precautions** • Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. If you have not donned special protective clothing approved for this material, do not expose yourself to any risk of this material touching you. Ventilate enclosed areas.
- Emergency Procedures** • Stop leak if you can do it without risk. Isolate the area and contain the spilled material. Persons not wearing the appropriate PPE should be removed from the area until the spill is cleaned up.
- Environmental Precautions** • Avoid run off to waterways and sewers. Do NOT wash away into sewer.
- Containment/Clean-up Measures** • Use appropriate Personal Protective Equipment (PPE) Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container. Allow product to cool/solidify and pick up as a solid.
- Prohibited Materials** • Avoid contact with strong oxidizing agents and acids. Do not pump hot materials into an enclosed vessel containing water.

Section 7 - Handling and Storage

- Handling** • Keep containers tightly closed when not in use. Use only with adequate ventilation. Avoid

vapors from heated product to prevent exposure to toxic and irritating fumes. Hydrogen Sulfide may be released when this materials is heated. Avoid overheating the material.

Storage

- Keep away from sources of ignition - No Smoking. Material is normally stored in closed tanks at 250°F to 375°F. The pressure in sealed containers can increase with the application of heat. This material will expand when heated. Keep away from incompatible materials. KEEP OUT OF THE REACH OF CHILDREN!

Special Packaging Materials

- No data available

Incompatible Materials or Ignition Sources

- Avoid contact with strong oxidizing agents and acids.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms

Respiratory • Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face • Wear protective eyewear (goggles, face shield, or safety glasses).

Hands • If product is hot, thermally protective, chemical resistant gloves are recommended. Gloves that protect the forearm are recommended.

Skin/Body • Wear clothing that covers the skin to prevent skin exposure. If material is hot, thermally protective clothing with long sleeves are recommended.

General Industrial Hygiene Considerations • Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke during work. Wash hands before eating.

Engineering Measures/Controls • Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Exposure Limits/Guidelines					
	Result	ACGIH	Mexico	NIOSH	United States - California
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (fume, inhalable fraction, as benzene soluble aerosol)	5 mg/m3 TWA LMPE-PPT	Not established	5 mg/m3 PEL (fume)
	Ceilings	Not established	Not established	5 mg/m3 Ceiling (fume, 15 min)	Not established
Hydrogen sulfide (7783-06-4)	TWAs	1 ppm TWA	10 ppm TWA LMPE-PPT; 14 mg/m3 TWA LMPE-PPT	Not established	10 ppm PEL; 14 mg/m3 PEL
	Ceilings	Not established	Not established	10 ppm Ceiling (10 min); 15 mg/m3 Ceiling (10 min)	Not established

Exposure Control Notations

ACGIH

Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free))

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Semi-Solid @ 70°F
Color	Black	Odor	Mild Hydrocarbon.
Odor Threshold	No data available	Physical and Chemical Properties	No data available

General Properties

Boiling Point	700 to 1000°F(371.1 to 537.8°C)	Melting Point	100 to 200°F(37.77 to 93.3°C)
pH	No data available	Specific Gravity/Relative Density	1 to 1.3 Water=1
Density	No data available	Bulk Density	No data available
Water Solubility	No data available	Solvent Solubility	No data available
Viscosity	No data available		

Volatility

Vapor Pressure	< 0.1 mmHg (torr) @ 20° C(68° F)	Vapor Density	> 1 Air=1
Evaporation Rate	No data available	VOC (Wt.)	No data available
VOC (Vol.)	< 5 g/L	Volatiles (Wt.)	No data available
Volatiles (Vol.)	No data available		

Flammability

Flash Point	> 400°F(> 204°C) OC (Open Cup)	UEL	5 %
LEL	.5 %	Autoignition	> 500 F(> 260 C)

Section 10 - Stability and Reactivity

- Stability** • Stable under normal temperatures and pressures.
- Hazardous Polymerization** • Hazardous polymerization not indicated.
- Conditions to Avoid** • Avoid contact with strong oxidizing agents and acids. Avoid overheating the material. Do not pump hot materials into an enclosed vessel containing water.
- Incompatible Materials** • Strong oxidizers and acids.
- Hazardous Decomposition Products** • Carbon monoxide, carbon dioxide and hydrocarbons. Sulfur Oxides, Nitrogen Oxides, Hydrogen Sulfide.

Section 11 - Toxicological Information

Component Name	CAS	Data
Asphalt (0% TO 100%)	8052-42-4	Acute Toxicity: orl-rat LD50:>5000 mg/kg; ihl-rat LC50:>94.4 mg/m ³ ; ihl-hmn TDLo:10 mg/m ³ /5.5Y-I; Tumorigen/Carcinogen: skn-mus TDLo:905 gm/kg/2Y-I
Hydrogen sulfide (< 0.1%)	7783-06-4	Acute Toxicity: ihl-mus LC50:634 ppm/1H; Irritation: eye-hmn 0.000125 ppm/5H

- Other Information** • This product contains petroleum asphalt. Petroleum asphalt is not listed as a carcinogen by OSHA or NTP. The National Institute of Occupational Safety and Health (NIOSH), has concluded that at higher temperatures roofing asphalt fumes are a potential occupational carcinogen. If this product is heated or comes in contact with heated material, avoid breathing fumes. This product may contain small amounts of polycyclic aromatic hydrocarbons (PAH's) which are recognized carcinogens in humans and experimental animals. Mouse skin painting studies of roofing asphalt vapor concentrate have shown evidence of tumor formation associated with localized skin irritation in recent studies. Inhalation studies of high airborne concentrations of asphalt/bitumen fumes in rats and mice produced bronchitis, pneumonitis, and lung changes such as fibrosis and cell damage.

Section 12 - Ecological Information

- Ecological Fate** • Not expected to be harmful to aquatic organisms.
Persistence/Degradability • No data available.
Bioaccumulation Potential • No data available.
Mobility in Soil • No data available.

Section 13 - Disposal Considerations

Product • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transportation Information

DOT - United States - Department of Transportation

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.
ID Number: UN3257
Hazard Class: 9
Labeling Class: 9
Packing Group: III

Not Regulated by DOT if shipped at room temperature in containers less than 119 gallons.

TDG - Canada - Transport of Dangerous Goods

Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S.
ID Number: UN3257
Hazard Class: 9.1
Labeling Class: 9.1
Packing Group: III

IMO/IMDG –International Maritime Transport

Shipping Name: ELEVATED TEMPERATURE LIQUID,N.O.S.
ID Number: 3257
Hazard Class: 9
Labeling Class: 9
Packing Group: III

IATA/ICAO - International Air Transport Association

Air Shipment of hot asphalt is not standard practice. UN3257 is Forbidden from air shipments at temperature above 100°C. Shipment by air is not forbidden at temperatures less than 100°C.

Section 15 - Regulatory Information

SARA Hazard Classifications • Acute, Chronic

Risk & Safety Phrases • California PROP 65: Asphalt and Asphalt Fumes may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm.

State Right To Know				
Component	CAS	MA	MN	NJ
Asphalt	8052-42-4	Yes	Yes	Yes
Hydrogen sulfide	7783-06-4	Yes	Yes	Yes
Inventory				
Component	CAS	EU EINECS		TSCA
Asphalt	8052-42-4	Yes		Yes
Hydrogen sulfide	7783-06-4	Yes		Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Hydrogen sulfide 7783-06-4 < 0.1% A, B1, D1A, D2B
- Asphalt 8052-42-4 0% TO 100% Not Listed

United States

Environment

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Hydrogen sulfide 7783-06-4 < 0.1% 100 lb final RQ; 45.4 kg final RQ
- Asphalt 8052-42-4 0% TO 100% Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Hydrogen sulfide 7783-06-4 < 0.1% 100 lb EPCRA RQ
- Asphalt 8052-42-4 0% TO 100% Not Listed

United States - California

Labor

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Hydrogen sulfide 7783-06-4 < 0.1%

Asphalt 8052-42-4 0% TO 100% (Petroleum fumes, includes any liquids or products that could give rise to fumes under normal conditions)

Environment

U.S. - California - Proposition 65 - Carcinogens List

Hydrogen sulfide 7783-06-4 < 0.1% Not Listed

Asphalt 8052-42-4 0% TO 100% Not Listed

Section 16 - Other Information

Prepared By

- GG Inc.

Preparation Date

- 11/20/2011

Last Revision Date

- 6/5/2012

Disclaimer/Statement of Liability

- This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to verify the suitability and completeness of such information for particular use. Gardner-Gibson does not accept liability for any loss or damage that may occur from the use of this information.

NFPA:

