

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Asphalt Cement (Asphalt)

**Synonyms:** Asphalt Cement, Petroleum Asphalt, Unmodified Asphalt Cement, Polymer Modified Asphalt Cement, Neat Asphalt Cement, Bitumen, 40-50, 60-70, 85-100, 120-150, 150-200, 160-180, 200-300, 300-400, AC-10, AC-20, PG 46-34, PG 52-28, PG 52-34, PG 52-34 PMA, PG 52-40, PG 52-40 PMA, PG 58-22, PG 58-28, PG 58-34, PG 58-34 PMA, PG 58-40, PG 58-40 PMA, PG 64-22, PG 64-22 PMA, PG 64-28, PG 64-28 PMA, PG 64-34, PG 64-34 PMA, PG 64-40, PG 64-40 PMA, PG 70-22, PG 70-22 PMA, PG 70-28, PG 70-28 PMA, PG 70-34, PG 70-34 PMA, PG 76-22, PG 76-22 PMA, PG 76-28, PG 76-28 PMA.

**Note:** This SDS covers many types of Asphalt Cements. Individual composition of hazardous constituents will vary between types of asphalt.

### 1.2. Intended Use of the Product

Asphalt is used as a binder in asphalt paving applications such as paving roads, driveways, parking lots and other surface, base, or sub-base applications.

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

#### Company

Lafarge North America Inc.

8700 West Bryn Mawr Avenue, Suite 300

Chicago, IL 60631

Information: 773-372-1000 (9am to 5pm CST)

email: [SDSinfo@Lafarge.com](mailto:SDSinfo@Lafarge.com)

Website: [www.lafarge-na.com](http://www.lafarge-na.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : 1-800-451-8346 (3E Hotline)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**Classification (GHS-US)**

Carc. 2 H351

Full text of H-phrases: see section 16

### 2.2. Label Elements

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)** :



GHS08

**Signal Word (GHS-US)** :

Warning

**Hazard Statements (GHS-US)** :

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.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial, and international regulations.

### 2.3. Other Hazards

Dust may cause mechanical irritation to eyes, nose, throat, and lungs. Direct contact may result in corneal injury. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) can be aggravated by exposure. Additionally, the product may contain low levels of polynuclear aromatics (PNAs), which may cause skin lesions and skin cancer. At elevated temperatures, this product will cause thermal burns and may release toxic hydrogen sulfide (H<sub>2</sub>S). Hydrogen sulfide (CAS No. 7783-06-4) is a fatal and

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Explosion can occur if hydrogen sulfide is allowed to accumulate in the headspace of closed systems in the presence of an ignition source.

### 2.4. Unknown Acute Toxicity (GHS-US) No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	80 - 100	Carc. 2, H351
Sulfur	(CAS No) 7704-34-9	<= 0.1, 0.1 - 1, 1 - 5, 5 - 7	Comb. Dust Skin Irrit. 2, H315 Aquatic Acute 3, H402

More than one of the ranges of concentration prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Keep at rest and in a position comfortable for breathing. If you feel unwell, seek medical advice.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Seek immediate medical attention for thermal burns. Do not attempt to forcibly remove material from skin after cooling. Removal of solidified molten material from skin requires medical assistance.

**Eye Contact:** Do not rub. Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Obtain medical attention if irritation develops or persists. Seek immediate medical attention for thermal burns.

**Ingestion:** Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Emissions from asphalt are suspected of causing cancer. Dust may cause immediate or delayed irritation to eyes, skin and respiratory tract. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. This product if heated, may release asphalt fumes that may cause irritation to the throat, nose and skin irritation. If inhaled, the fumes may cause nausea, headache, or dizziness. Prolonged and repeated contact with cold asphalt may cause dermatitis and other skin problems, while contact with hot product will cause thermal burns. If ingested, the product may cause internal organ irritation and may cause possible nausea, vomiting, and diarrhea. Hot asphalt droplets or particles can cause eye burns or irritation. A splash in the eye of hot asphalt can cause serious eye injury. Hot molten product will cause thermal burns to the skin.

**Inhalation:** Exposure to fumes, vapors, or dust may cause irritation of the nose, throat, and respiratory system. Hot material releases irritating fumes or vapors; symptoms may include headache, dizziness, loss of coordination, and drowsiness.

**WARNING:** irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

**Skin Contact:** Dust may cause dry skin, discomfort, irritation and dermatitis. Hot product will cause severe burns.

**Eye Contact:** Eye contact to airborne dust may cause immediate or delayed irritation or inflammation. Hot product will cause severe burns. Eye exposures may require immediate first aid and medical attention to prevent significant damage to the eye.

**Ingestion:** Do not ingest asphalt. Ingestion of small quantities of asphalt is not known to be harmful; ingesting large quantities can cause intestinal distress. May cause nausea, vomiting, and diarrhea.

**Chronic Symptoms:** Emissions from asphalt are suspected of causing cancer. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin, and other organs.

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

If burned by hot product, cool affected area immediately with cool water. Do not attempt to remove solidified material from skin or eyes. Seek medical attention immediately. If exposed or concerned, get medical advice and attention. If medical advice is needed,

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

have product container, label, or SDS at hand.

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media:** Do not use water when molten material is involved. Use of water on hot/molten product will result in a violent expansion as the water turns to steam causing explosion with massive force.

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

**Fire Hazard:** Combustible at high temperatures. May release flammable gases/vapors. Flammable vapors can accumulate in head space of closed systems and in areas of insufficient ventilation.

**Explosion Hazard:** Product is not explosive. However, thermal decomposition may generate fumes that are flammable or explosive. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide. Hydrogen sulfide is a highly flammable, toxic gas.

**Reactivity:** Asphalt may be incompatible with strong oxidizing agents like nitric acid. Charring may occur followed by ignition of unreactive material and other nearby combustibles. If heated sufficiently or ignited in the presence of air, oxygen or strong oxidizing agents, can burn exothermically. May be ignited by strong oxidizing agents.

#### 5.3. Advice for Firefighters

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

**Firefighting Instructions:** Do not breathe fumes from fires or vapors from decomposition: May release poisonous hydrogen sulfide. Do not allow run-off from firefighting to enter drains or water sources.

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

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Hydrocarbons. Hydrogen sulfide..

#### Reference to Other Sections

Refer to section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**General Measures:** Do not breathe dust, vapor, or gas. Avoid all contact with skin, eyes, or clothing.

##### 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 Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

#### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

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

**For Containment:** Cool molten material to limit spreading.

**Methods for Cleaning Up:** Allow liquid material to solidify before cleaning up. Place spilled material into a container. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate protective equipment as described in Section 8. Do not wash asphalt down sewage and drainage systems or into bodies of water (e.g. streams).

#### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection. For further information refer to Section 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** If stored under heat for extended periods or significantly agitated, this material might evolve or release hydrogen sulfide, a flammable gas. Hydrogen sulfide is a toxic gas that can be fatal. Exercise caution and ensure adequate ventilation.

**Precautions for Safe Handling:** Do not handle until all safety precautions have been read and understood. Protect skin and eyes from contact with molten material. Do not breathe dust or fumes.

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

**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 contaminated clothing before reuse.

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

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers (such as nitrates, chlorates, and peroxides). Fluorine.

### 7.3. Specific End Use(s)

Asphalt is used as a binder in asphalt paving applications such as paving roads, driveways, parking lots and other surface, base, or sub-base applications.

## 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), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Asphalt (8052-42-4)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Mexico	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
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
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
Alberta	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Petroleum; Bitumen-fume)
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (inhalable fume)
Manitoba	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (petroleum fumes)
Newfoundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
Nunavut	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Petroleum fumes)
Nunavut	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Petroleum fumes)
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (Petroleum fumes)
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (Petroleum fumes)
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable)
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume, inhalable fraction)
Québec	VEMP (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup> (fumes-inhalable fraction)
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (fume and inhalable fraction)
Yukon	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (fume)
Yukon	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (fume)
Sulfur (7704-34-9)		
Alberta	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Hydrogen sulfide (7783-06-4)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	10 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	15 ppm
USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH STEL (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA IDLH	US IDLH (ppm)	100 ppm
Alberta	OEL Ceiling (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Alberta	OEL Ceiling (ppm)	15 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	10 ppm
British Columbia	OEL Ceiling (ppm)	10 ppm
Manitoba	OEL STEL (ppm)	5 ppm
Manitoba	OEL TWA (ppm)	1 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	15 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
New Brunswick	OEL TWA (ppm)	10 ppm
Newfoundland & Labrador	OEL STEL (ppm)	5 ppm
Newfoundland & Labrador	OEL TWA (ppm)	1 ppm
Nova Scotia	OEL STEL (ppm)	5 ppm
Nova Scotia	OEL TWA (ppm)	1 ppm
Nunavut	OEL Ceiling (mg/m <sup>3</sup> )	28 mg/m <sup>3</sup>
Nunavut	OEL Ceiling (ppm)	20 ppm
Nunavut	OEL STEL (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Nunavut	OEL STEL (ppm)	15 ppm
Nunavut	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Nunavut	OEL TWA (ppm)	10 ppm
Northwest Territories	OEL Ceiling (mg/m <sup>3</sup> )	28 mg/m <sup>3</sup>
Northwest Territories	OEL Ceiling (ppm)	20 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (ppm)	15 ppm
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	10 ppm
Ontario	OEL STEL (ppm)	15 ppm
Ontario	OEL TWA (ppm)	10 ppm
Prince Edward Island	OEL STEL (ppm)	5 ppm
Prince Edward Island	OEL TWA (ppm)	1 ppm
Québec	VECD (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Québec	VECD (ppm)	15 ppm
Québec	VEMP (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Québec	VEMP (ppm)	10 ppm
Saskatchewan	OEL STEL (ppm)	15 ppm
Saskatchewan	OEL TWA (ppm)	10 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	27 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	15 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	10 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. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.

**Personal Protective Equipment:** Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Suitable materials with adequate protection.

**Hand Protection:** Protective Gloves.

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

**Eye Protection:** Chemical goggles. Wearing contact lenses under dusty conditions is not recommended.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** When first opening tank trucks, railcars, or other containers, it is recommended to wear appropriate NIOSH approved respiratory protection. Appropriate NIOSH approved respiratory protection must be worn if material is heated and/or generates asphalt fumes and/or hydrogen sulfide above the OSHA and ACGIH recommended limits.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical State	: Solid
Appearance	: Black or brown solid or semi-solid
Odor	: Slight petroleum odor
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: > 400 °C (752 °F)
Flash Point	: > 230 °C (446 °F) Cleveland Open Cup
Auto-ignition Temperature	: > 370 °C (698 °F)
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 0.95 - 1.13
Solubility	: Insoluble in water
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: 139-3000 cP at 135 °C (275 °F).
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity:** ASPHALT may be incompatible with strong oxidizing agents like nitric acid. Charring may occur followed by ignition of unreactive material and other nearby combustibles. If heated sufficiently or ignited in the presence of air, oxygen or strong oxidizing agents, can burn exothermically. May be ignited by strong oxidizing agents.

**10.2. Chemical Stability:** May release poisonous hydrogen sulfide upon heating.

**10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**10.4. Conditions to Avoid:** Open flame. Sources of ignition. Extremely high or low temperatures. Incompatible materials.

**10.5. Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers (such as nitrates, chlorates, and peroxides). Fluorine.

**10.6. Hazardous Decomposition Products:** Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Hydrocarbons. Hot asphalt can release toxic Hydrogen Sulfide. Hydrogen Sulfide can accumulate in vapor space of tanks and vessels during transfer and storage of this material. Hydrogen sulfide is a toxic gas that can be fatal.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not available

**Carcinogenicity:** Suspected of causing cancer

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

**Reproductive Toxicity:** Not classified

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

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Exposure to fumes, vapors, or dust may cause irritation of the nose, throat, and respiratory system. Hot material releases irritating fumes or vapors; symptoms may include headache, dizziness, loss of coordination, and drowsiness.

WARNING: irritating and toxic hydrogen sulfide gas may be present. Greater than 15-20ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50-500 ppm can cause headache, nausea, and dizziness. Continued exposure at these levels can lead to loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500ppm can cause rapid unconsciousness and death if not promptly revived.

**Symptoms/Injuries After Skin Contact:** Dust may cause dry skin, discomfort, irritation and dermatitis. Hot product will cause severe burns.

**Symptoms/Injuries After Eye Contact:** Eye contact to airborne dust may cause immediate or delayed irritation or inflammation. Hot product will cause severe burns. Eye exposures may require immediate first aid and medical attention to prevent significant damage to the eye.

**Symptoms/Injuries After Ingestion:** Do not ingest asphalt. Ingestion of small quantities of asphalt is not known to be harmful; ingesting large quantities can cause intestinal distress. May cause nausea, vomiting, and diarrhea.

**Chronic Symptoms:** Emissions from asphalt are suspected of causing cancer. Product may contain polynuclear aromatic hydrocarbons (PNAs). Evidence from animal studies indicates that prolonged exposure to various PNAs can cause cancer of the lungs, skin, and other organs.

### 11.2. Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

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>
Sulfur (7704-34-9)	
LD50 Oral Rat	> 3000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 9.23 mg/l/4h
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.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity** No additional information available

Sulfur (7704-34-9)	
LC50 Fish 1	866 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	736 mg/l
LC 50 Fish 2	14 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

**12.2. Persistence and Degradability** Not available

**12.3. Bioaccumulative Potential**

Asphalt (8052-42-4)	
BCF Fish 1	(no bioaccumulation expected)
Log Pow	> 6

# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

**12.4. Mobility in Soil** Not available

**12.5. Other Adverse Effects** Not available

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

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

**Additional Information:** Where possible, recycling of used and unused uncontaminated substance is recommended.

### SECTION 14: TRANSPORT INFORMATION

#### 14.1. In Accordance with DOT

**Proper Shipping Name** : ELEVATED TEMPERATURE LIQUID, N.O.S. at or above 100 C and below its flash point (Asphalt)

**Hazard Class** : 9

**Identification Number** : UN3257

**Label Codes** : 9

**Packing Group** : III

**ERG Number** : 128



#### 14.2. In Accordance with IMDG

**Proper Shipping Name** : ELEVATED TEMPERATURE LIQUID, N.O.S. at or above 100 C and below its flash point (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. at or above 100 C and below its flash point (Asphalt)

**Identification Number** : UN3257

**Hazard Class** : 9

**Label Codes** : 9

**ERG Code (IATA)** : 9L



#### 14.4. In Accordance with TDG

**Proper Shipping Name** : ELEVATED TEMPERATURE LIQUID, N.O.S. at or above 100 C and below its flash point (Asphalt)

**Packing Group** : III

**Hazard Class** : 9

**Identification Number** : UN3257

**Label Codes** : 9



### SECTION 15: REGULATORY INFORMATION

#### 15.1. US Federal Regulations

<b>Asphalt Cement (Asphalt)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	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>Sulfur (7704-34-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

#### 15.2. US State Regulations

<b>Asphalt (8052-42-4)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List



# Asphalt Cement (Asphalt)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

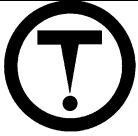
### Sulfur (7704-34-9)

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

### 15.3. Canadian Regulations

#### Asphalt Cement (Asphalt)

WHMIS Classification      Class D Division 2 Subdivision A - Very toxic material causing other toxic effects  
Class D Division 2 Subdivision B - Toxic material causing other toxic effects



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

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification      Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

#### Sulfur (7704-34-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification      Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision Date** : 05/26/2015

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Skin Irrit. 2	Skin corrosion/irritation Category 2
Comb. Dust	May form combustible dust concentrations in air
H315	Causes skin irritation
H351	Suspected of causing cancer
H402	Harmful to aquatic life

#### Party Responsible for the Preparation of This Document

Lafarge North America Inc.  
+1 773-372-1000 (9am to 5pm CST)

An electronic version of this SDS is available at: [www.lafarge-na.com](http://www.lafarge-na.com) under the Sustainability and Products sections. Please direct any inquiries regarding the content of this SDS to [SDSinfo@Lafarge.com](mailto:SDSinfo@Lafarge.com).

Lafarge North America Inc. (LNA) believes the information contained herein is accurate; however, LNA makes no guarantees with respect to such accuracy and assumes no liability in connection with the use of the information contained herein which is not intended to be and should not be construed as legal advice or as insuring compliance with any federal, state or local laws or regulations. Any party using this product should review all such laws, rules, or regulations prior to use, including but not limited to US and Canada Federal, Provincial and State regulations.

NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE.