Asphalt Cement - All Grades
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 02/23/2016 Date of issue: 02/23/2016

SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Mixture
Product Name: Asphalt Cement - All Grades
Synonyms: Asphalt Cement/Petroleum Asphalt
Other means of identification: PG 52-34, 58-22, 58-28, 58-34, 64-22, 64-28, 64-34, 70-22, 70-28, 70-34, 76-22, 76-28, 82-22, 82-28, AC 5, AC 10, AC 20, AC 30, AC 40,

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
Vance Brothers
5201 Brighton Ave., P.O. Box 300107
Kansas City, MO 64130
T 816-923-4325/ 800-821-8549 - F 816-923-6472

1.4. Emergency Telephone Number
Emergency Number : 800-424-9300
CHEMTREC

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) :

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 eye protection, protective clothing, protective gloves.
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, and international regulations.

2.3. Other Hazards
Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. 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. Flammable vapors can accumulate in head space of closed systems.

2.4. Unknown Acute Toxicity (GHS-US)
10 percent of the mixture consists of ingredient(s) of unknown acute toxicity

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>(CAS No) 8052-42-4</td>
<td>60 - 100</td>
<td>Carc. 2, H351</td>
</tr>
<tr>
<td>Styrene-butadiene copolymer</td>
<td>(CAS No) 9003-55-8</td>
<td>0 - 10</td>
<td>Not classified</td>
</tr>
</tbody>
</table>
Asphalt Cement - All Grades
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Proprietary Additive | None | N/A | Flam. Sol. 1, H228 Skin Irrit. 2, H315 Carc. 1B, H350 Repr. 2, H361 STOT RE 1, H372 Aquatic Acute 3, H402 |

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Full text of H-phrases: see section 16

**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).

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse. In molten form: Cool skin rapidly with cold water after contact with molten product, Removal of solidified molten material from skin requires medical assistance.

First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. In molten form: Protect skin and eyes from contact with molten material.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

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

Symptoms/Injuries: This product, if heated may release asphalt fumes. During processing, inhalation of fumes may cause dizziness and/or irritation to the eyes, nose, and throat. Hot molten product will cause thermal burns to the skin. There are potential chronic health effects to consider.

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause skin irritation. Risk of thermal burns on contact with molten product.

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

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. May cause gastrointestinal irritation.

Chronic Symptoms: Suspected of causing cancer.

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

If you feel unwell, seek medical advice.

**SECTION 5: FIRE-FIGHTING MEASURES**

5.1. **Extinguishing Media**

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

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

Fire Hazard: Not considered flammable but will burn at high temperatures. Flammable vapors can accumulate in head space of closed systems. Under fire conditions, hazardous fumes will be present.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. **Advice for Firefighters**

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

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water sources. Do not breathe fumes or vapors from fire. Use water spray or fog for cooling exposed containers.

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

Other Information: Refer to Section 9 for flammability properties.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

6.1.1. For Non-emergency Personnel

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

Asphalt Cement - All Grades
Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For Emergency Responders
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: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Contact competent authorities after a spill.

6.4. Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
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.

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.

7.3. Specific End Use(s)
Construction Material

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).

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (mg/m³)</th>
<th>ACGIH chemical category</th>
<th>NIOSH REL (ceiling) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (8052-42-4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>0.5 mg/m³ (fume, inhalable fraction)</td>
<td>Not Classifiable as a Human Carcinogen, fume, coal tar-free</td>
<td>5 mg/m³ (fume)</td>
</tr>
</tbody>
</table>

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 adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

<table>
<thead>
<tr>
<th>Materials for Protective Clothing</th>
<th>Hand Protection</th>
<th>Eye Protection</th>
<th>Skin and Body Protection</th>
<th>Respiratory Protection</th>
<th>Thermal Hazard Protection</th>
<th>Environmental Exposure Controls</th>
<th>Consumer Exposure Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemically resistant materials and fabrics.</td>
<td>Wear chemically resistant protective gloves.</td>
<td>Chemical safety goggles.</td>
<td>Wear suitable protective clothing.</td>
<td>Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.</td>
<td>When working with hot material, use suitable thermally protective clothing.</td>
<td>Avoid release to the environment.</td>
<td>Do not eat, drink or smoke during use.</td>
</tr>
</tbody>
</table>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties
Physical State: Solid
Appearance: Brown to Black in Color
Odor: Tar Odor, Often Sulfurous
Odor Threshold: No data available
pH: 9 - 10.6
Evaporation Rate: No data available
Melting Point: No data available
Freezing Point: No data available
# Asphalt Cement - All Grades

## Safety Data Sheet

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

## Boiling Point
371.11 °C (700 °F)

## Flash Point
> 232 °C (449.6 °F)

## Auto-ignition Temperature
> 370 °C (698 °F)

## Decomposition Temperature
No data available

## Flammability (solid, gas)
No data available

## Vapor Pressure
< 1 mm Hg at 70˚F (20˚C)

## Relative Vapor Density at 20 °C
> 5 (air=1)

## Relative Density
No data available

## Specific Gravity
0.98 - 1.04

## Solubility
Water: Insoluble

## Partition Coefficient: N-Octanol/Water
No data available

## Viscosity
No data available

## 9.2. Other Information
VOC content: 0 %

### SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

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


### SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

#### Acute Toxicity: Not classified

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 Oral Rat</th>
<th>LD50 Dermal Rabbit</th>
<th>LC50 Inhalation Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (8052-42-4)</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 2000 mg/kg</td>
<td>&gt; 94.4 mg/m³</td>
</tr>
<tr>
<td>Sulfur (7704-34-9)</td>
<td>&gt; 3000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 Inhalation Rat</td>
<td>4.71 mg/l/4h</td>
<td>(reported as &gt; 4.7 mg/l/4h)</td>
<td></td>
</tr>
</tbody>
</table>

#### Skin Corrosion/Irritation:
Not classified (pH: 9 - 10.6)

#### Serious Eye Damage/Irritation:
Not classified (pH: 9 - 10.6)

#### Respiratory or Skin Sensitization:
Not classified

#### Germ Cell Mutagenicity:
Not classified

#### Carcinogenicity:
Suspected of causing cancer.

### Asphalt (8052-42-4)

<table>
<thead>
<tr>
<th>Substance</th>
<th>IARC group</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>2B</td>
</tr>
<tr>
<td>National Toxicology Program (NTP) Status</td>
<td>Twelfth Report - Items under consideration.</td>
</tr>
<tr>
<td>OSHA Hazard Communication Carcinogen List</td>
<td>In OSHA Hazard Communication Carcinogen list.</td>
</tr>
</tbody>
</table>

### Styrene-butadiene copolymer (9003-55-8)

<table>
<thead>
<tr>
<th>Substance</th>
<th>IARC group</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
<td>3</td>
</tr>
<tr>
<td>Reproductive Toxicity:</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Single Exposure):</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Repeated Exposure):</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration Hazard:</td>
<td>Not classified</td>
</tr>
<tr>
<td>Symptoms/Injuries After Inhalation:</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Skin Contact:</td>
<td>May cause skin irritation. Risk of thermal burns on contact with molten product.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Eye Contact:</td>
<td>May cause eye irritation. Risk of thermal burns on contact with molten product.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Ingestion:</td>
<td>Ingestion is likely to be harmful or have adverse effects. May cause gastrointestinal irritation.</td>
</tr>
</tbody>
</table>

#### Chronic Symptoms:
Suspected of causing cancer.
Asphalt Cement - All Grades

Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

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

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)

<table>
<thead>
<tr>
<th>LC50 Fish 1</th>
<th>&gt; 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
</tbody>
</table>

12.2. Persistence and Degradability

Asphalt Cement - All Grades

Persistence and Degradability: Not established.

12.3. Bioaccumulative Potential

Asphalt Cement - All Grades

Bioaccumulative Potential: Not established.

Asphalt (8052-42-4)

BCF fish 1: (no bioaccumulation expected)

Log Pow: > 6

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not empty into drains. Do not dispose of waste into sewer.

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

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 (including molten metals, molten salts, etc.)

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.

Hazard Class: 9
Identification Number: UN3257
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.

Hazard Class: 9
Identification Number: UN3257
Label Codes: 9
ERG Code (IATA): 9L

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Asphalt (8052-42-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes: Delayed (chronic) health hazard
Asphalt Cement - All Grades

Safety Data Sheet
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Styrene-butadiene copolymer (9003-55-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sulfur (7704-34-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes
Immediate (acute) health hazard
Delayed (chronic) health hazard

15.2 US State Regulations

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

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

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

Revision Date: 02/23/2016
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:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation:dust,mist)</th>
<th>Acute toxicity (inhalation:dust,mist) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquatic Acute 3</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 3</td>
</tr>
<tr>
<td>Asp. Tox. 1</td>
<td>Aspiration hazard Category 1</td>
</tr>
<tr>
<td>Carc. 1B</td>
<td>Carcinogenicity Category 1B</td>
</tr>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity Category 2</td>
</tr>
<tr>
<td>Comb. Dust</td>
<td>May form combustible dust concentrations in air</td>
</tr>
<tr>
<td>Flam. Sol. 1</td>
<td>Flammable solids Category 1</td>
</tr>
<tr>
<td>Rep. 2</td>
<td>Reproductive toxicity Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity (repeated exposure) Category 1</td>
</tr>
<tr>
<td>H228</td>
<td>Flammable solid</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

NFPA Health Hazard: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA Fire Hazard: 1 - Must be preheated before ignition can occur.

NFPA Reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

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)