SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form: Mixture
Product name: UPM Liquid Blend
Other means of identification: UPM Liquid Blend (Shipped above flash point)

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet
UNIQUE Paving Materials Corp.
3993 East 93rd Street
Cleveland, 44106 - United States of America
T (216) 341-7711
http://www.uniquepavingmaterials.com/

1.4. Emergency telephone number
Emergency number: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (GHS-US)
Skin Irrit. 2 H315
Skin Sens. 1 H317
Carc. 1B H350
STOT RE 2 H373
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):
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H350 - May cause cancer
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US):
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe fumes or vapours
P261 - Avoid breathing fumes
P264 - Wash hands thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear personal protective equipment
P302+P352 - If on skin: Wash with plenty of water for at least 15 minutes
P308+P313 - If exposed or concerned: Get medical advice/attention
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see first aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P364+P366 - Take off contaminated clothing and wash it before reuse
P405 - Store locked up
P501 - Dispose of contents/container to meet all regulations
2.3. Other hazards
No additional information available

2.4. Unknown acute toxicity (GHS-US)
1.12 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
1.12 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

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>Petroleum Asphalt Base</td>
<td>(CAS No) 8052-42-4</td>
<td>75-95</td>
<td>Carc. 1B, H350</td>
</tr>
<tr>
<td>Petroleum Solvent</td>
<td>(CAS No) 68476-34-6</td>
<td>3-25</td>
<td>Flam. Liq. 3, H226, Acute Tox. 4 (Dermal), H312, Acute Tox. 4 (Inhalation), H332, Skin Irrit. 2, H315, Carc. 2, H351, STOT RE 2, H373, Asp. Tox. 1, H304, Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>Polyamines</td>
<td></td>
<td>0-3</td>
<td>Skin Sens. 1, H317, Carc. 1B, H350</td>
</tr>
</tbody>
</table>

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: Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see first aid measures on this label).

First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after inhalation: Inhaling this product can result in respiratory tract irritation, leading to mild to severe irritation of the nose, throat and lungs. Dizziness, headaches, nausea.

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Severe irritation including redness, tearing and blurred vision.

Symptoms/injuries after ingestion: May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapor.

Explosion hazard: Never use a welding or cutting torch on or near drums of this material (even empty drums) because the material can ignite explosively. May form flammable/explosive vapour-air mixture.
Reactivity: Stable under normal conditions.

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General measures: Water or foam may cause frothing which can be violent and may present a life-threatening situation. Frothing is most likely to occur when streams of water or foam are sprayed into hot or burning containers. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel
Protective equipment: Wear personal protective equipment.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
For containment: Dike the product for recovery.
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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 vapors are flammable.
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing fumes.
Hygiene measures: Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Container remains hazardous when empty. Continue to observe all precautions. Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical equipment.
Storage conditions: Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from high temperature or ignition sources. Keep container closed when not in use.
Incompatible products: Strong bases. Strong acids.
Incompatible materials: Sources of ignition. Direct sunlight. Heat sources.
Storage temperature: Short term store near 200F; Pump at 170F and above; Long term may be stored at ambient temperature to minimize the volatilization of petroleum solvent.

7.3. Specific end use(s)
No additional information available
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPM Liquid Blend/ SC cutback Asphalt</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Petroleum Asphalt Base (8052-42-4)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>5</td>
</tr>
<tr>
<td>Petroleum Solvent (68476-34-6)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>100 mg/m³</td>
</tr>
<tr>
<td>Polyamines</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Materials for protective clothing: Impervious clothing, Footwear (shoes, boots).
Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or safety glasses.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: Wear appropriate mask.
Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark, Viscous Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Black,Dark</td>
</tr>
<tr>
<td>Odor</td>
<td>ammonia odor,Tar, Petroleum</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>Slower than Ether</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>400 °F</td>
</tr>
<tr>
<td>Flash point</td>
<td>200 - 230 °F Cleveland Tag Open Cup Method</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>Heavier than air.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Lower than water.</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>lower than water</td>
</tr>
</tbody>
</table>
Solubility: Negligible. 

Water: Solubility in water of component(s) of the mixture:

- 0.4 % - epsilon.-Caprolactam: 4560 g/l (at 20 °C)

Log Pow: No data available

Log Kow: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Explosive limits: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid


10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Petroleum Asphalt Base (8052-42-4)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 94.4 ml/m³</td>
</tr>
</tbody>
</table>

Petroleum Solvent (68476-34-6)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2000 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>5000.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>2000.000 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>4500.000 ppmV/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>1.500 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: May cause cancer.
Petroleum Asphalt Base (8052-42-4)

| IARC group | 2A - Probably carcinogenic to humans, 2B - Possibly carcinogenic to humans |
| Reproductive toxicity | Not classified |
| Specific target organ toxicity (single exposure) | Not classified |

Specific target organ toxicity (repeated exposure): May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified

Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation: Inhaling this product can result in respiratory tract irritation, leading to mild to severe irritation of the nose, throat and lungs. Dizziness, headaches, nausea.

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Severe irritation including redness, tearing and blurred vision.

Symptoms/injuries after ingestion: May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract. Ingestion may cause nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general: Avoid release to the environment.

12.2. Persistence and degradability

| Product Type | Persistence and degradability |
| UPM Liquid Blend/SC cutback Asphalt | Not established. |
| Petroleum Asphalt Base (8052-42-4) | Not established. |
| Petroleum Solvent (68476-34-6) | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative potential

| Product Type | Bioaccumulative potential |
| UPM Liquid Blend/SC cutback Asphalt | BCF fish 1 <= |
| Petroleum Asphalt Base (8052-42-4) | Not established. |
| Petroleum Solvent (68476-34-6) | Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer: 

Effect on the global warming: No known ecological damage caused by this product.

Other information: Avoid release to the environment.
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Sewage disposal recommendations: Do not dispose of waste into sewer.

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to meet all regulations.

Additional information: Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not evaluated

Additional information

Other information: No supplementary information available.

ADR

No additional information available

Transport by sea

Proper Shipping Name (IMDG): ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S.

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

UPM Liquid Blend/ SC cutback Asphalt

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Sulfide</td>
<td>7783-06-4</td>
<td>C&lt;=0.095%</td>
</tr>
<tr>
<td>Polymamines</td>
<td>Trade secret</td>
<td>C&lt;=1.12%</td>
</tr>
<tr>
<td>Tall Oil</td>
<td>Trade secret</td>
<td>C&lt;=5.32%</td>
</tr>
<tr>
<td>Distilled Tall Oil</td>
<td>8002-26-4</td>
<td>C&lt;=2.80%</td>
</tr>
</tbody>
</table>

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations
15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

Petroleum Asphalt Base (8052-42-4)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information
Other information: None.

Full text of H-phrases:

- Acute Tox. 4 (Dermal) - Acute toxicity (dermal) Category 4
- Acute Tox. 4 (Inhalation) - Acute toxicity (inhalation) Category 4
- Aquatic Chronic 2 - Hazardous to the aquatic environment - Chronic Hazard Category 2
- Asp. Tox. 1 - Aspiration hazard Category 1
- Carc. 1B - Carcinogenicity Category 1B
- Carc. 2 - Carcinogenicity Category 2
- Flam. Liq. 3 - Flammable liquids Category 3
- Skin Irrit. 2 - Skin corrosion/irritation Category 2
- Skin Sens. 1 - Skin sensitization Category 1
- STOT RE 2 - Specific target organ toxicity (repeated exposure) Category 2
- H226 - Flammable liquid and vapour
- H304 - May be fatal if swallowed and enters airways
- H312 - Harmful in contact with skin
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H332 - Causes skin irritation
- H350 - May cause cancer
- H351 - Suspected of causing cancer
- H373 - May cause damage to organs through prolonged or repeated exposure
- H411 - Toxic to aquatic life with long lasting effects

GHS US SDS
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.

“Providing valuable products from valuable people to valuable customers.”
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