Section 1 - Product and Company Identification

Material Name - Non-Fibered Asphalt Emulsion
Chemical Category - Mixture
Product Code - AP-3000
Chemical Category - Asphalt Based Coating Product
Product Use - Non-Fibered Asphalt Emulsion Coating.
Manufacturer - APOC
4161 E. 7th Avenue
Tampa, FL 33605
United States

Preparation Date - 11/28/2005
Last Revision Date - 4/27/2015

Section 2 - Hazards Identification

Signal Word – WARNING!

GHS Hazards and Precautions

May be harmful if swallowed. May cause respiratory irritation. Causes eye irritation. Causes mild skin irritation. Contains Petroleum Based Products. Use only with adequate ventilation. Avoid prolonged breathing of vapor or spray mist. Keep product closed and properly stored when not in use. Avoid contact with skin. Use protective gloves, safety glasses, and protective clothing when using this product. Do not use in drinking water or food systems. Do not reuse empty container. Make sure container is sealed and secured in an upright position during transportation. Do not eat or drink while using this product and wash hand thoroughly after use.

Prevention
Do not breathe dust, fume, gas, mist, vapours and/or spray. Do not handle until all safety precautions have been read and understood. Wear protective gloves, clothing, and eye/face protection.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

Physical Form - Liquid
Color - Black
Odor - Mild Hydrocarbon.
Flash Point - 460°F(238°C)
OSHA(HCS2012) - Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A (Hot Asphalt Fumes – High Temperatures)
WHMIS - Class D - Poisonous and Infectious Materials - Division 2 - Subdivision A
GHS - Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A

Route Of Entry - Inhalation, Skin, Eye, Ingestion/Oral
Medical Conditions Aggravated by Exposure - Lungs, Skin/Dermal,

Potential Health Effects

Inhalation
Acute (Immediate) - May cause irritation.
Chronic (Delayed) - No data available

Skin
Acute (Immediate) - May cause irritation.
Chronic (Delayed) - Repeated and prolonged exposure may cause dermatitis.

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) - No data available

Carcinogenic Effects - See Section 11 - Toxicological Information.

Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>% (wt)</th>
<th>UN/EINECS</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>30% TO 50%</td>
<td>NA1999, 232-490-9</td>
<td>Ingestion/Oral-Rat LD50 · &gt;5000 mg/kg; Inhalation-Rat LC50 · &gt;94.4 mg/m³</td>
<td>WHMIS: Other Toxic Effects - D2A UN GHS: Carc. 2; Eye Irrit. 2A; Skin Irrit. 2 EU DSD/DPD: NDA</td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>3% TO 8%</td>
<td></td>
<td></td>
<td>UN GHS: Eye Irrit. 2A; STOT RE 2 EU DSD/DPD: Irritant(Xi); R36/37 NDA</td>
<td></td>
</tr>
<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>1% TO 5%</td>
<td>215-108-5</td>
<td></td>
<td>WHMIS: Other Toxic Effects - D2A UN GHS: STOT RE 2 NDA</td>
<td></td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>0.1% TO 1%</td>
<td>238-878-4</td>
<td></td>
<td>UN GHS: Carc. 1A; STOT RE 1 EU DSD/DPD: Carcinogen 1(Carc.Cat.1); R49 NDA</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>% (wt)</th>
<th>UN/EINECS</th>
<th>LD50/LC50</th>
<th>EU R &amp; S Phrases</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>40% TO 55%</td>
<td>231-791-2</td>
<td></td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

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**
- Call a physician or poison control center if you feel unwell. If not breathing, give artificial respiration. Remove to fresh air.

**Skin**
- Get medical attention if symptoms of irritation occur. Wash the contaminated area of body with soap and fresh water. Remove contaminated clothing and shoes. Wash clothing before reuse.

**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 if symptoms occur.

**Ingestion**
- Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting.

**Other Information**
- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

**Extinguishing Media**
- Essentially nonflammable. Use extinguishing media for surrounding materials. Use CO2, dry chemical, or foam.

**Unsuitable Extinguishing Media**
- Water spray in straight line can splatter and spread fire.

**Firefighting Procedures**
- Keep unauthorized personnel away. Stay upwind.

**Unusual Fire and Explosion Hazards**
- May release irritating or toxic gases, fumes, or vapors.

**Hazardous Combustion Products**
- Carbon monoxide, carbon dioxide, hydrocarbons.

**Protection of Firefighters**
- Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

**Flash Point**
- 460°F (238°C)

Section 6 - Accidental Release Measures

**Personal Precautions**
- Do not respond to spilled material if you have not donned recommended protective clothing approved for this material. Ventilate enclosed areas as needed.

**Emergency Procedures**
- Stop spill if you can do so 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

**Containment/Clean-up Measures**
- Use appropriate Personal Protective Equipment (PPE). Contain and recover liquid when possible. Contain and/or absorb spill with inert material (e.g. sand, vermiculite, and then place in suitable container. Do not use water to flush spill area.

**Prohibited Materials**
- Avoid contact with strong oxidizing agents

Section 7 - Handling and Storage

**Handling**
- Keep containers tightly closed when not in use. Use with adequate ventilation. Keep away from heat and ignition sources.

**Storage**
- Keep in the original container/package and in a cool well-ventilated place. Keep away from fire. Keep container closed when not in use.

**Incompatible Materials or Ignition Sources**
- Avoid contact with strong oxidizing agents and acids.
Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms

- 

Respiratory - When used with adequate ventilation, a respirator is not normally required. If required, use a NIOSH-approved air purifying respirator with organic vapor cartridge or supplied air respirator. 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.

Eye/Face - Wear ANSI approved safety glasses with side shields or safety goggles.

Hands - Wear chemical protective gloves made of Nitrile or Neoprene.

Skin/Body - Wear clothing that covers the skin to prevent skin exposure.

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 - Use precaution to protect building intake from fumes and vapors created outdoors.

Exposure Limits/Guidelines - Refer to listed exposure limits in state information of this section.

NFPA - H=1, F=1, R=0

<table>
<thead>
<tr>
<th>Result</th>
<th>ACGIH</th>
<th>Mexico</th>
<th>OSHA</th>
<th>United States - California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7) TWAs</td>
<td>0.025 mg/m3 TWA (respirable fraction)</td>
<td>0.1 mg/m3 TWA (respirable fraction)</td>
<td>Not established</td>
<td>0.3 mg/m3 PEL (total dust); 0.1 mg/m3 PEL (respirable dust)</td>
</tr>
<tr>
<td>Kaolin (1332-58-7) TWAs</td>
<td>2 mg/m3 TWA (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td>10 mg/m3 TWA</td>
<td>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</td>
<td>2 mg/m3 PEL (respirable dust, containing no asbestos fibers, &lt;1% crystalline silica)</td>
</tr>
<tr>
<td>Asphalt (8052-42-4) TWAs</td>
<td>0.5 mg/m3 TWA (as benzene soluble aerosol, fume, inhalable fraction)</td>
<td>5 mg/m3 TWA</td>
<td>Not established</td>
<td>5 mg/m3 PEL (fume)</td>
</tr>
</tbody>
</table>

Section 9 - Physical and Chemical Properties

Physical Form - Liquid

Appearance/Description - Thick black semi-liquid.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color: Black</td>
<td>Odor: Mild Hydrocarbon.</td>
</tr>
<tr>
<td>Taste: No data available.</td>
<td>Odor Threshold: NDA</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>212 F(100 C)</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>NDA</td>
</tr>
<tr>
<td>Specific Gravity/Relative Density:</td>
<td>1.035 Water=1</td>
</tr>
<tr>
<td>Density:</td>
<td>8.5 lbs/gal</td>
</tr>
<tr>
<td>Bulk Density:</td>
<td>NDA</td>
</tr>
<tr>
<td>Solvent Solubility:</td>
<td>NDA</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>NDA</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>460°F(238°C)</td>
</tr>
<tr>
<td>Flash Point Test Type:</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Page 4 of 6
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.
Incompatible Materials - Strong oxidizers and acids.
Hazardous Decomposition Products - Carbon monoxide, carbon dioxide and hydrocarbons.

Section 11 - Toxicological Information

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Concentration</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>30% TO 50%</td>
<td>8052-42-4</td>
<td>Acute Toxicity: ; orl-rat LD50:&gt;5000 mg/kg; ihl-rat LC50:&gt;94.4 mg/m3; ihl-hmn TDL0:10 mg/m3/5.5Y-I; Tumorigen/Carcinogen: ; skn-mus TDL0:905 gm/kg/2Y-I</td>
</tr>
<tr>
<td>Kaolin</td>
<td>3% TO 8%</td>
<td>1332-58-7</td>
<td>Acute Toxicity: ; orl-rat TDL0:370 gm/kg/37D-I</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1% TO 5%</td>
<td>1302-78-9</td>
<td>Acute Toxicity: ; orl-rat TDL0:700 mg/kg/7D-I</td>
</tr>
<tr>
<td>Quartz</td>
<td>0.1% TO 1%</td>
<td>14808-60-7</td>
<td>Acute Toxicity: ; orl-rat TDL0:120 gm/kg</td>
</tr>
</tbody>
</table>

Other Component Information - IARC has concluded that the following chemicals in this product are carcinogenic to humans (Group 1): silica, quartz. ACGIH has designated the following chemicals in this product as suspected human carcinogens (A2): silica, quartz. NTP has listed the following chemicals in this product as known human carcinogens: silica, quartz. Risk of cancer depends on duration and level of exposure to this product as a dust or aerosol mist.

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 - No data available.
Persistence/Degradability - No data available.
Bioaccumulation Potential - No data available.
Mobility in Soil - No data available.

Section 13 - Disposal Considerations

Product - Dispose in accordance with applicable federal, state, and local government regulations.
Packaging - 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: Not Restricted

TDG - Canada - Transport of Dangerous Goods
Shipping Name: Not Restricted
IMO/IMDG – International Maritime Transport
Shipping Name: Not Restricted

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.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

State Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>EU EINECS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Yes</td>
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<td>Asphalt</td>
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<td>Yes</td>
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</table>

Canada - WHMIS - Classifications of Substances

- Kaolin 1332-58-7 3% TO 8% D2A
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS website.)
- Bentonite 1302-78-9 1% TO 5% D2A
- Water 7732-18-5 40% TO 55% Uncontrolled product according to WHMIS classification criteria

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

- Kaolin 1332-58-7 3% TO 8% Not Listed
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% Carcinogen, initial date 10/1/88 (airborne particles of respirable size)
- Bentonite 1302-78-9 1% TO 5% Not Listed
- Water 7732-18-5 40% TO 50% Not Listed

Section 16 - Other Information

Last Revision Date - 4/27/2015
Prepared By - GG Inc.
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. APOC does not accept liability for any loss or damage that may occur from the use of this information.
Section 1 - Product and Company Identification

Material Name - Non-Fibered Asphalt Emulsion
Chemical Category - Mixture
Product Code - AP-3005
Chemical Category - Asphalt Based Coating Product
Product Use - Non-Fibered Asphalt Emulsion Coating.
Manufacturer - APOC
   4161 E. 7th Avenue
   Tampa, FL 33605
   United States
Telephone
   Technical - 813-248-2101
   Emergency - 800-424-9300
Preparation Date - 11/28/2005
Last Revision Date - 4/27/2015

Section 2 - Hazards Identification

Signal Word – WARNING!

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May be harmful if swallowed. May cause respiratory irritation. Causes eye irritation. Causes mild skin irritation. Contains Petroleum Based Products. Use only with adequate ventilation. Avoid prolonged breathing of vapor or spray mist. Keep product closed and properly stored when not in use. Avoid contact with skin. Use protective gloves, safety glasses, and protective clothing when using this product. Do not use in drinking water or food systems. Do not reuse empty container. Make sure container is sealed and secured in an upright position during transportation. Do not eat or drink while using this product and wash hand thoroughly after use.

Prevention
Do not breathe dust, fume, gas, mist, vapours and/or spray. Do not handle until all safety precautions have been read and understood. Wear protective gloves, clothing, and eye/face protection.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

Physical Form - Liquid
Color - Black
Odor - Mild Hydrocarbon.
Flash Point - 460°F(238°C)
OSHA(HCS2012) - Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A (Hot Asphalt Fumes – High Temperatures)
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Route Of Entry - Inhalation, Skin, Eye, Ingestion/Oral

Medical Conditions Aggravated by Exposure - Lungs, Skin/Dermal

Potential Health Effects

Inhalation
  Acute (Immediate) - May cause irritation.
  Chronic (Delayed) - No data available

Skin
  Acute (Immediate) - May cause irritation.
  Chronic (Delayed) - Repeated and prolonged exposure may cause dermatitis.

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) - No data available

Carcinogenic Effects - See Section 11 - Toxicological Information.

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<td></td>
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<td>238-878-4</td>
<td></td>
<td>UN GHS: Carc. 1A; STOT RE 1; EU DSD/DPD: Carcinogen 1(Carc. Cat.1); R49</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Non-Hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>%(wt)</th>
<th>UN;EINECS</th>
<th>LD50/LC50</th>
<th>EU R &amp; S Phrases</th>
<th>Other</th>
</tr>
</thead>
<tbody>
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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.

Non-Hazardous Components

See Section 11 for Toxicological Information.
Section 4 - First Aid Measures

Inhalation - Call a physician or poison control center if you feel unwell. If not breathing, give artificial respiration. Remove to fresh air.

Skin - Get medical attention if symptoms of irritation occur. Wash the contaminated area of body with soap and fresh water. Remove contaminated clothing and shoes. Wash clothing before reuse.

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 if symptoms occur.

Ingestion - Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting.

Other Information - Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

Extinguishing Media - Essentially nonflammable. Use extinguishing media for surrounding materials. Use CO2, dry chemical, or foam.

Unsuitable Extinguishing Media - Water spray in straight line can splatter and spread fire.

Firefighting Procedures - Keep unauthorized personnel away. Stay upwind.

Unusual Fire and Explosion Hazards - May release irritating or toxic gases, fumes, or vapors.

Hazardous Combustion Products - Carbon monoxide, carbon dioxide, hydrocarbons.

Protection of Firefighters - Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

Flash Point - 460°F(238°C)

Section 6 - Accidental Release Measures

Personal Precautions - Do not respond to spilled material if you have not donned recommended protective clothing approved for this material. Ventilate enclosed areas as needed.

Emergency Procedures - Stop spill if you can do so 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

Containment/Clean-up Measures - Use appropriate Personal Protective Equipment (PPE). Contain and recover liquid when possible. Contain and/or absorb spill with inert material (e.g. sand, vermiculite, and then place in suitable container. Do not use water to flush spill area.

Prohibited Materials - Avoid contact with strong oxidizing agents

Section 7 - Handling and Storage

Handling - Keep containers tightly closed when not in use. Use with adequate ventilation. Keep away from heat and ignition sources.

Storage - Keep in the original container/package and in a cool well-ventilated place. Keep away from fire. Keep container closed when not in use.

Incompatible Materials or Ignition Sources - Avoid contact with strong oxidizing agents and acids.
Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms

Respiratory - When used with adequate ventilation, a respirator is not normally required. If required, use a NIOSH-approved air purifying respirator with organic vapor cartridge or supplied air respirator. 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.

Eye/Face - Wear ANSI approved safety glasses with side shields or safety goggles.

Hands - Wear chemical protective gloves made of Nitrile or Neoprene.

Skin/Body - Wear clothing that covers the skin to prevent skin exposure.

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 - Use precaution to protect building intake from fumes and vapors created outdoors.

Exposure Limits/Guidelines - Refer to listed exposure limits in state information of this section.

NFPA H=1, F=1, R=0

<table>
<thead>
<tr>
<th>Result</th>
<th>ACGIH</th>
<th>Mexico</th>
<th>OSHA</th>
<th>United States - California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7) TWAs 0.025 mg/m3 TWA (respirable fraction)</td>
<td>0.1 mg/m3 TWA (respirable fraction)</td>
<td>Not established</td>
<td>0.3 mg/m3 PEL (total dust); 0.1 mg/m3 PEL (respirable dust)</td>
<td></td>
</tr>
<tr>
<td>Kaolin (1332-58-7) TWAs 2 mg/m3 TWA (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td>10 mg/m3 TWA</td>
<td>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</td>
<td>2 mg/m3 PEL (respirable dust, containing no asbestos fibers, &lt;1% crystalline silica)</td>
<td></td>
</tr>
<tr>
<td>Asphalt (8052-42-4) TWAs 0.5 mg/m3 TWA (as benzene soluble aerosol, fume, inhalable fraction)</td>
<td>5 mg/m3 TWA</td>
<td>Not established</td>
<td>5 mg/m3 PEL (fume)</td>
<td></td>
</tr>
</tbody>
</table>

Section 9 - Physical and Chemical Properties

Physical Form - Liquid

Appearance/Description - Thick black semi-liquid.

Color: Black Odor: Mild Hydrocarbon.
Taste: No data available. Odor Threshold: NDA

Boiling Point: 212°F(100°C) Vapor Pressure: NDA
Melting Point: NDA Vapor Density: = 1 Air=1
Specific Gravity/Relative Density: = 1.035 Water=1 Evaporation Rate: = 1 Water = 1
Density: = 8.5 lbs/gal VOC (Wt.): NDA
Bulk Density: NDA VOC (Vol.): < 10 g/L
Solvent Solubility: NDA Flash Point: 460°F(238°C)
Viscosity: NDA Flash Point Test Type: NDA
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.

Incompatible Materials
- Strong oxidizers and acids.

Hazardous Decomposition Products
- Carbon monoxide, carbon dioxide and hydrocarbons.

Section 11 - Toxicological Information

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Concentration</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>30% TO 50%</td>
<td>8052-42-4</td>
<td>Acute Toxicity: ; orl-rat LD50:&gt;5000 mg/kg; ihl-rat LC50:&gt;94.4 mg/m3; ihl-hmn TDL0:10 mg/m3/5.5Y-I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tumorigen/Carcinogen: ; skn-mus TDL0:905 gm/kg/2Y-I</td>
</tr>
<tr>
<td>Kaolin</td>
<td>3% TO 8%</td>
<td>1332-58-7</td>
<td>Acute Toxicity: ; orl-rat TDLo:370 gm/kg/37D-I</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1% TO 5%</td>
<td>1302-78-9</td>
<td>Acute Toxicity: ; orl-rat TDLo:700 mg/kg/7D-I</td>
</tr>
<tr>
<td>Quartz</td>
<td>0.1% TO 1%</td>
<td>14808-60-7</td>
<td>Acute Toxicity: ; orl-rat TDLo:120 gm/kg</td>
</tr>
</tbody>
</table>

Other Component Information
- IARC has concluded that the following chemicals in this product are carcinogenic to humans (Group 1): silica, quartz. ACGIH has designated the following chemicals in this product as suspected human carcinogens (A2): silica, quartz. NTP has listed the following chemicals in this product as known human carcinogens: silica, quartz. Risk of cancer depends on duration and level of exposure to this product as a dust or aerosol mist.

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
- No data available.

Persistence/Degradability
- No data available.

Bioaccumulation Potential
- No data available.

Mobility in Soil
- No data available.

Section 13 - Disposal Considerations

Product
- Dispose in accordance with applicable federal, state, and local government regulations.

Packaging
- 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: Not Restricted

TDG - Canada - Transport of Dangerous Goods
Shipping Name: Not Restricted
Section 15 - Regulatory Information

SARA Hazard Classifications
- Acute, Chronic
- 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.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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</table>

State Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>EU EINECS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canada - WHMIS - Classifications of Substances
- Kaolin 1332-58-7 3% TO 8% D2A
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS website.)
- Bentonite 1302-78-9 1% TO 5% D2A
- Water 7732-18-5 40% TO 55% Uncontrolled product according to WHMIS classification criteria

U.S. - California - Proposition 65 - Carcinogens List
- Kaolin 1332-58-7 3% TO 8% Not Listed
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% carcinogen, initial date 10/1/88 (airborne particles of respirable size)
- Bentonite 1302-78-9 1% TO 5% Not Listed
- Water 7732-18-5 40% TO 50% Not Listed

Section 16 - Other Information

Last Revision Date - 4/27/2015
Prepared By - GG Inc.
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. APOC does not accept liability for any loss or damage that may occur from the use of this information.
Safety Data Sheet
AP-3007
4/27/15

Section 1 - Product and Company Identification

Material Name - Non-Fibered Asphalt Emulsion
Chemical Category - Mixture
Product Code - AP-3007
Chemical Category - Asphalt Based Coating Product
Product Use - Non-Fibered Asphalt Emulsion Coating.
Manufacturer - APOC
4161 E. 7th Avenue
Tampa, FL 33605
United States

Telephone
Technical - 813-248-2101
Emergency - 800-424-9300

Preparation Date - 11/28/2005
Last Revision Date - 4/27/2015

Section 2 - Hazards Identification

Signal Word – WARNING!

GHS Hazards and Precautions

May be harmful if swallowed. May cause respiratory irritation. Causes eye irritation. Causes mild skin irritation. Contains Petroleum Based Products. Use only with adequate ventilation. Avoid prolonged breathing of vapor or spray mist. Keep product closed and properly stored when not in use. Avoid contact with skin. Use protective gloves, safety glasses, and protective clothing when using this product. Do not use in drinking water or food systems. Do not reuse empty container. Make sure container is sealed and secured in an upright position during transportation. Do not eat or drink while using this product and wash hand thoroughly after use.

Prevention
Do not breathe dust, fume, gas, mist, vapours and/or spray. Do not handle until all safety precautions have been read and understood. Wear protective gloves, clothing, and eye/face protection.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

Physical Form - Liquid
Color - Black
Odor - Mild Hydrocarbon.
Flash Point - 460°F(238°C)
OSHA(HCS2012) - Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A (Hot Asphalt Fumes – High Temperatures)
WHMIS - Class D - Poisonous and Infectious Materials - Division 2 - Subdivision A
GHS - Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A

Route Of Entry - Inhalation, Skin, Eye, Ingestion/Oral

Medical Conditions Aggravated by Exposure - Lungs, Skin/Dermal

Potential Health Effects

Inhalation
Acute (Immediate) - May cause irritation.
Chronic (Delayed) - No data available

Skin
Acute (Immediate) - May cause irritation.
Chronic (Delayed) - Repeated and prolonged exposure may cause dermatitis.

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) - No data available

Carcinogenic Effects - See Section 11 - Toxicological Information.

### Section 3 - Composition/Information on Ingredients

#### Hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>%(wt)</th>
<th>UN/EINECS</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>30% TO 50%</td>
<td>NA1999, 232-490-9</td>
<td>Ingestion/Oral-Rat LD50 · &gt;5000 mg/kg Inhalation-Rat LC50 · &gt;94.4 mg/m³</td>
<td>WHMIS: Other Toxic Effects - D2A UN GHS: Carc. 2; Eye Irrit. 2A; Skin Irrit. 2 EU DSD/DPD: NDA</td>
<td></td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>3% TO 8%</td>
<td></td>
<td></td>
<td>UN GHS: Eye Irrit. 2A; STOT RE 2 EU DSD/DPD: Irritant(Xi); R36/37 NDA</td>
<td></td>
</tr>
<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>1% TO 5%</td>
<td>215-108-5</td>
<td></td>
<td>WHMIS: Other Toxic Effects - D2A UN GHS: STOT RE 2 NDA</td>
<td></td>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>0.1% TO 1%</td>
<td>238-878-4</td>
<td></td>
<td>UN GHS: Carc. 1A; STOT RE 1 EU DSD/DPD: Carcinogen 1(Carc.Cat.1); R49 NDA</td>
<td></td>
</tr>
</tbody>
</table>

#### Non-Hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>%(wt)</th>
<th>UN/EINECS</th>
<th>LD50/LC50</th>
<th>EU R &amp; S Phrases</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>40% TO 55%</td>
<td>231-791-2</td>
<td></td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

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**
- Call a physician or poison control center if you feel unwell. If not breathing, give artificial respiration. Remove to fresh air.

**Skin**
- Get medical attention if symptoms of irritation occur. Wash the contaminated area of body with soap and fresh water. Remove contaminated clothing and shoes. Wash clothing before reuse.

**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 if symptoms occur.

**Ingestion**
- Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting.

**Other Information**
- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

**Extinguishing Media**
- Essentially nonflammable. Use extinguishing media for surrounding materials. Use CO2, dry chemical, or foam.

**Unsuitable Extinguishing Media**
- Water spray in straight line can splatter and spread fire.

**Firefighting Procedures**
- Keep unauthorized personnel away. Stay upwind.

**Unusual Fire and Explosion Hazards**
- May release irritating or toxic gases, fumes, or vapors.

**Hazardous Combustion Products**
- Carbon monoxide, carbon dioxide, hydrocarbons.

**Protection of Firefighters**
- Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

**Flash Point**
- 460°F(238°C)

Section 6 - Accidental Release Measures

**Personal Precautions**
- Do not respond to spilled material if you have not donned recommended protective clothing approved for this material. Ventilate enclosed areas as needed.

**Emergency Procedures**
- Stop spill if you can do so 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

**Containment/Clean-up Measures**
- Use appropriate Personal Protective Equipment (PPE). Contain and recover liquid when possible. Contain and/or absorb spill with inert material (e.g. sand, vermiculite, and then place in suitable container. Do not use water to flush spill area.

**Prohibited Materials**
- Avoid contact with strong oxidizing agents

Section 7 - Handling and Storage

**Handling**
- Keep containers tightly closed when not in use. Use with adequate ventilation. Keep away from heat and ignition sources.

**Storage**
- Keep in the original container/package and in a cool well-ventilated place. Keep away from fire. Keep container closed when not in use.

**Incompatible Materials or Ignition Sources**
- Avoid contact with strong oxidizing agents and acids.
Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms

Respiratory
- When used with adequate ventilation, a respirator is not normally required. If required, use a NIOSH-approved air purifying respirator with organic vapor cartridge or supplied air respirator. 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.

Eye/Face
- Wear ANSI approved safety glasses with side shields or safety goggles.

Hands
- Wear chemical protective gloves made of Nitrile or Neoprene.

Skin/Body
- Wear clothing that covers the skin to prevent skin exposure.

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
- Use precaution to protect building intake from fumes and vapors created outdoors.

Exposure Limits/Guidelines
- Refer to listed exposure limits in state information of this section.

NFPA
H=1, F=1, R=0

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Result</th>
<th>ACGIH</th>
<th>Mexico</th>
<th>OSHA</th>
<th>United States - California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7)</td>
<td>TWAs</td>
<td>0.025 mg/m³ TWA (respirable fraction)</td>
<td>0.1 mg/m³ TWA (respirable fraction)</td>
<td>Not established</td>
<td>0.3 mg/m³ PEL (total dust); 0.1 mg/m³ PEL (respirable dust)</td>
</tr>
<tr>
<td>Kaolin (1332-58-7)</td>
<td>TWAs</td>
<td>2 mg/m³ TWA (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td>10 mg/m³ TWA</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
<td>2 mg/m³ PEL (respirable dust, containing no asbestos fibers, &lt;1% crystalline silica)</td>
</tr>
<tr>
<td>Asphalt (8052-42-4)</td>
<td>TWAs</td>
<td>0.5 mg/m³ TWA (as benzene soluble aerosol, fume, inhalable fraction)</td>
<td>5 mg/m³ TWA</td>
<td>Not established</td>
<td>5 mg/m³ PEL (fume)</td>
</tr>
</tbody>
</table>

Section 9 - Physical and Chemical Properties

Physical Form
- Liquid

Appearance/Description
- Thick black semi-liquid.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild Hydrocarbon</td>
</tr>
<tr>
<td>Taste</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>NDA</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>212 °F (100 °C)</td>
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<tr>
<td>Vapor Pressure</td>
<td>NDA</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NDA</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>= 1 Air = 1</td>
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<tr>
<td>Specific Gravity/Relative</td>
<td>1.035 Water = 1</td>
</tr>
<tr>
<td>Density</td>
<td>8.5 lbs/gal</td>
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<tr>
<td>Evaporation Rate</td>
<td>1 Water = 1</td>
</tr>
<tr>
<td>Density</td>
<td>VOC (Wt.): NDA</td>
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<tr>
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<td>Flash Point</td>
<td>460°F (238°C)</td>
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<tr>
<td>Viscosity</td>
<td>NDA</td>
</tr>
<tr>
<td>Flash Point Test Type</td>
<td>NDA</td>
</tr>
</tbody>
</table>
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.

Incompatible Materials
- Strong oxidizers and acids.

Hazardous Decomposition Products
- Carbon monoxide, carbon dioxide and hydrocarbons.

Section 11 - Toxicological Information

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Concentration</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>30% TO 50%</td>
<td>8052-42-4</td>
<td>Acute Toxicity: ; orl-rat LD50: &gt;5000 mg/kg; ihl-rat LC50: &gt;94.4 mg/m3; ihl-hmn TDL0: 10 mg/m3/5.5Y-l</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tumorigen/Carcinogen: ; skn-mus TDL0: 905 gm/kg/2Y-l</td>
</tr>
<tr>
<td>Kaolin</td>
<td>3% TO 8%</td>
<td>1332-58-7</td>
<td>Acute Toxicity: ; orl-rat TDL0: 370 gm/kg/37D-l</td>
</tr>
<tr>
<td>Bentonite</td>
<td>1% TO 5%</td>
<td>1302-78-9</td>
<td>Acute Toxicity: ; orl-rat TDL0: 700 mg/kg/7D-l</td>
</tr>
<tr>
<td>Quartz</td>
<td>0.1% TO 1%</td>
<td>14808-60-7</td>
<td>Acute Toxicity: ; orl-rat TDL0: 120 gm/kg</td>
</tr>
</tbody>
</table>

Other Component Information
- IARC has concluded that the following chemicals in this product are carcinogenic to humans (Group 1): silica, quartz. ACGIH has designated the following chemicals in this product as suspected human carcinogens (A2): silica, quartz. NTP has listed the following chemicals in this product as known human carcinogens: silica, quartz. Risk of cancer depends on duration and level of exposure to this product as a dust or aerosol mist.

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
- No data available.

Persistence/Degradability
- No data available.

Bioaccumulation Potential
- No data available.

Mobility in Soil
- No data available.

Section 13 - Disposal Considerations

Product
- Dispose in accordance with applicable federal, state, and local government regulations.

Packaging
- 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: Not Restricted

TDG - Canada - Transport of Dangerous Goods
Shipping Name: Not Restricted
IMO/IMDG –International Maritime Transport
Shipping Name: Not Restricted

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.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
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</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Bentonite</td>
<td>1302-78-9</td>
<td>No</td>
<td>No</td>
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<td>No</td>
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<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Yes</td>
<td>Yes</td>
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</table>

State Right To Know

<table>
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<th>Component</th>
<th>CAS</th>
<th>EU EINECS</th>
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<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Asphalt</td>
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<td>14808-60-7</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canada - WHMIS - Classifications of Substances

- Kaolin 1332-58-7 3% TO 8% D2A
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS website.)
- Bentonite 1302-78-9 1% TO 5% D2A
- Water 7732-18-5 40% TO 55% Uncontrolled product according to WHMIS classification criteria

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

- Kaolin 1332-58-7 3% TO 8% Not Listed
- Asphalt 8052-42-4 30% TO 50% Not Listed
- Quartz 14808-60-7 0.1% TO 1% Carcinogen, initial date 10/1/88 (airborne particles of respirable size)
- Bentonite 1302-78-9 1% TO 5% Not Listed
- Water 7732-18-5 40% TO 50% Not Listed

Section 16 - Other Information

Last Revision Date - 4/27/2015
Prepared By - GG Inc.
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