SAFETY DATA SHEET

1. Identification
Product identifier: Crafco Mastic, Polypatch and Matrix Products
Other means of identification: Not available.
Recommended use: Pavement Patching and Repair
Recommended restrictions: None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer:
Manufacturer: Crafco, Inc.
Address: 6165 West Detroit St.
            Chandler, AZ 85226 USA
Contact Name: Jim Chehovits
Telephone: 602-276-0406
E-mail: jim.chehovits@crafco.com
CHEMTREC: 800-424-9300 (North America)
           + 1-703-527-3887 (International)

2. Hazard(s) identification
Physical hazards: Not classified.
Health hazards: Not classified.
Environmental hazards: Not classified.
OSHA defined hazards: Not classified.

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

Label elements
Hazard symbol: None.
Signal word: Not applicable.
Hazard statement: Not applicable.
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients
Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC</td>
<td></td>
<td>64742-52-5</td>
<td>0 - 10</td>
</tr>
<tr>
<td>QUARTZ</td>
<td></td>
<td>14808-60-7</td>
<td>0 - 75</td>
</tr>
<tr>
<td>ASPHALT</td>
<td></td>
<td>8052-42-4</td>
<td>10 - 40</td>
</tr>
<tr>
<td>CALCIUM CARBONATE</td>
<td></td>
<td>471-34-1</td>
<td>0 - 10</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>0 - 75</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed. Call a physician if symptoms develop or persist.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly wash (or discard) clothing and shoes before reuse.
Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Do not induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed
In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

Indication of immediate medical attention and special treatment needed
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.

5. Fire-fighting measures
Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Addition of water or foam to the fire may cause frothing.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Fire may produce irritating, corrosive and/or toxic gases. Development of hazardous combustion gases or vapours possible in the event of a fire. The following may develop: Acrolein.

Special protective equipment and precautions for firefighters
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection.

Fire-fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. In the event of fire, cool tanks with water spray. By fire, toxic gases may be formed (COx, NOx). Keep run-off water out of sewers and water sources. Dike for water control.

Specific methods
In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

6. Accidental release measures
Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Do not touch or walk through spilled material.

Methods and materials for containment and cleaning up
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Dike far ahead of spill for later disposal. Following product recovery, flush area with water.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Runoff or release to sewer, waterway or ground is forbidden.

7. Handling and storage
Precautions for safe handling
The product is non-combustible. If heated, irritating vapors may be formed. Do not use in areas without adequate ventilation. Wash hands thoroughly after handling. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep the container tightly closed and dry. Store in a closed container away from incompatible materials. Keep out of the reach of children.

8. Exposure controls/personal protection
Occupational exposure limits

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCIA CARBONATE (CAS 471-34-1)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

Material name: Crafco Mastic, Polypatch and Matrix Products
5013 Version #: 01 Issue date: 02-27-2015
### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 64742-52-5)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Mist.</td>
</tr>
</tbody>
</table>

### US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUARTZ (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.3 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPHALT (CAS 8052-42-4)</td>
<td>TWA</td>
<td>0.5 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>QUARTZ (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

### US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUARTZ (CAS 14808-60-7)</td>
<td>TWA</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 64742-52-5)</td>
<td>TWA</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>

**Biological limit values**
- No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**
- Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

- **Eye/face protection**
  - Wear safety glasses; chemical goggles (if splashing is possible). Wear chemical goggles; face shield (if handling molten material).

- **Hand protection**
  - Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

- **Other**
  - Wear suitable protective clothing and eye/face protection. Use of an impervious apron is recommended.

**Skin protection**

**Respiratory protection**
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Thermal hazards**
- During product use, there is a risk of thermal burns.

**General hygiene considerations**
- When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and chemical properties

- **Appearance**
  - Solid.

- **Physical state**
  - Solid.

- **Form**
  - Solid.

- **Color**
  - Black. Dark brown

- **Odor**
  - Product is a black, semi-solid with a burnt tar odor.

- **Odor threshold**
  - Not available.

- **pH**
  - Not available.
Melting point/freezing point  150 - 250 °F (65.56 - 121.11 °C) ASTM D36 Softening Point
Initial boiling point and boiling range  > 800 °F (> 426.67 °C)
Flash point  > 400.0 °F (> 204.4 °C)
Evaporation rate  Not available.
Flammability (solid, gas)  Not available.
Upper/lower flammability or explosive limits
   Flammability limit - lower (%)  Not available.
   Flammability limit - upper (%)  Not available.
   Explosive limit - lower (%)  Not available.
   Explosive limit - upper (%)  Not available.
Vapor pressure  2.04 hPa estimated
Vapor density  Not available.
Relative density  Not available.
Solubility(ies)
   Solubility (water)  Not available.
Partition coefficient (n-octanol/water)  Not available.
Auto-ignition temperature  > 700 °F (> 371.11 °C)
Decomposition temperature  Not available.
Viscosity  Not available.
Other information
   Density  Not Available
   Percent volatile  0 %
   Specific gravity  1 - 2.2

10. Stability and reactivity
Reactivity  Not available.
Chemical stability  Material is stable under normal conditions.
Possibility of hazardous reactions
   Hazardous polymerization does not occur.
Conditions to avoid  Strong oxidizing agents.
Incompatible materials  Incompatible with oxidizing agents.
Hazardous decomposition products
   Upon decomposition, product emits acrid dense smoke with carbon dioxide, carbon monoxide, trace oxides of nitrogen and sulfur, and water.

11. Toxicological information
Information on likely routes of exposure
   Ingestion  May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
   Inhalation  May cause irritation to the respiratory system.
   Skin contact  Irritating to skin.
   Eye contact  Causes eye irritation. Molten material will produce thermal burns.

Symptoms related to the physical, chemical and toxicological characteristics
   Not available.

Information on toxicological effects
Acute toxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crafco Mastic, Polypatch and Matrix Products (CAS Mixture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Oral LD50</td>
<td>Mouse</td>
<td>17340.7969 mg/kg estimated</td>
</tr>
</tbody>
</table>

Material name: Crafco Mastic, Polypatch and Matrix Products  SDS US  5013  Version #: 01  Issue date: 02-27-2015
**Product** | **Species** | **Test Results**
--- | --- | ---
CALCIUM CARBONATE (CAS 471-34-1) | Rat | 18934.6973 mg/kg estimated

**Components** | **Species** | **Test Results**
--- | --- | ---
**Acute**
**Oral**
LD50 | Mouse | 6450 mg/kg
LD50 | Rat | 6450 mg/kg

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**
Defats the skin. Causes irritation.

**Serious eye damage/eye irritation**
Irritating to eyes.

**Respiratory or skin sensitization**
- **Respiratory sensitization**
  Not available.
- **Skin sensitization**
  Irritating to skin.
- **Germ cell mutagenicity**
  No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Not listed.

**Reproductive toxicity**
Contains no ingredient listed as toxic to reproduction

**Specific target organ toxicity**
- **- single exposure**
  Not available.
- **- repeated exposure**
  Not available.

**Respiratory sensitization**
Not available.

**Carcinogenicity**
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Ecotoxicity**
This product has no known eco-toxicological effects. Not expected to be harmful to aquatic organisms.

**Components** | **Species** | **Test Results**
--- | --- | ---
**Aquatic**
**Fish**
LC50 | Western mosquitofish (Gambusia affinis) | > 56000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**
Not available.

**Bioaccumulative potential**
Not available.

**Mobility in soil**
Not available.

**Other adverse effects**
Not available.

**13. Disposal considerations**

**Disposal instructions**
Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

**Hazardous waste code**
Not applicable.

**Waste from residues / unused products**
Dispose of in accordance with local regulations.

**Contaminated packaging**
Offer rinsed packaging material to local recycling facilities.

**14. Transport information**

**DOT**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.
IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not available.

Further information If the product is shipped at temperatures below 212°F (100°C), it is not regulated for transport by ground, air or vessel. If shipped above 212 deg F: "UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt mixture), 9, PG III"

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
No
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List
ASPHALT (CAS 8052-42-4)
CALCIUM CARBONATE (CAS 471-34-1)
QUARTZ (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
ASPHALT (CAS 8052-42-4)
CALCIUM CARBONATE (CAS 471-34-1)
QUARTZ (CAS 14808-60-7)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
ASPHALT (CAS 8052-42-4) Listed: January 1, 1990
QUARTZ (CAS 14808-60-7) Listed: October 1, 1988

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*"Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 02-27-2015  
Version #: 01  
Further information: HMIS® is a registered trade and service mark of the NPCA.

References
- ACGIH  
- EPA: AQUIRE database  
- US. IARC Monographs on Occupational Exposures to Chemical Agents  
- HSDB® - Hazardous Substances Data Bank  
- IARC Monographs. Overall Evaluation of Carcinogenicity  
- National Toxicology Program (NTP) Report on Carcinogens  
- ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Disclaimer
The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information
- Composition / Information on Ingredients: Ingredients  
- Physical & Chemical Properties: Multiple Properties  
- Transport Information: Material Transportation Information  
- Transport information: Further information  
- Regulatory Information: Risk Phrases - Class.