Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
CARBON PITCH SOLID

Synonyms
CARBON PITCH; CARBON PITCH HARD PENCIL; CARBON PITCH PENCIL; DISTRESSED PITCH; ELECTRODE, AROMATIC, BINDER, TARGET, CORE, COAL TAR PITCH; HARD CARBON PITCH - PENCIL; MISCELLANEOUS PITCH - IMPORT; PITCH FINES, TARGET PITCH PENCIL

Chemical Family
polynuclear aromatic hydrocarbons

Product Use
process chemical. Component in the manufacture of electrodes and anodes for aluminum, metallurgic and electro-steel industries, activated carbon, carbon refractory blast furnace linings, and clay target manufacture.

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
KOPPERS INC.
436 Seventh Avenue
Pittsburgh, PA 15219-1800
Mfg Contact: 412-227-2001 (SDS Requests: 866-852-5239)

CHEMTREC: 800-424-9300 (Outside USA: +1 703-527-3887)
Emergencies: (Medical in USA): 877-737-9047
Emergencies: (Medical Outside of USA): 651-632-9269
E-mail: naorgmsds@koppers.com

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Combustible Dust
Skin Sensitization - Category 1
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1A
Reproductive Toxicity - Category 1B
Hazardous to the Aquatic Environment - Chronic - Category 4

GHS Label Elements

Symbol(s)

Signal Word
Danger

Hazard Statement(s)
May form combustible dust concentrations in air.
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
May cause long lasting harmful effects to aquatic life.

Precautionary Statement(s)

Prevention
Avoid breathing dust.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.

Response
IF exposed or concerned: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage
Store locked up.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards
None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>65996-93-2</td>
<td>Coal tar pitches</td>
<td>100</td>
</tr>
<tr>
<td>-</td>
<td>The above listed complex substance contains the following constituents</td>
<td>-</td>
</tr>
<tr>
<td>50-32-8</td>
<td>Benzo[a]pyrene</td>
<td>1.05-1.67</td>
</tr>
<tr>
<td>206-44-0</td>
<td>Fluoranthene</td>
<td>0.37-1.59</td>
</tr>
<tr>
<td>189-64-0</td>
<td>Dibenzo(a,h)pyrene</td>
<td>0.12-1.49</td>
</tr>
<tr>
<td>53-70-3</td>
<td>Dibenzo(a,h)anthracene</td>
<td>1.06-1.39</td>
</tr>
<tr>
<td>192-97-2</td>
<td>Benzo(e)pyrene</td>
<td>0.75-1.36</td>
</tr>
<tr>
<td>191-24-2</td>
<td>Benzo(ghi)perylene</td>
<td>0.83-1.34</td>
</tr>
<tr>
<td>129-00-0</td>
<td>Pyrene</td>
<td>0.40-1.30</td>
</tr>
<tr>
<td>205-99-2</td>
<td>Benzo(b)fluoranthene</td>
<td>0.79-1.30</td>
</tr>
<tr>
<td>218-01-9</td>
<td>Chrysene</td>
<td>0.56-1.30</td>
</tr>
</tbody>
</table>
Component Related Regulatory Information
This product may be regulated, have exposure limits or other information identified as the following: Aromatic hydrocarbons, polycyclic (130489-29-2).

Section 4 - FIRST AID MEASURES

Inhalation
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin
Wash all affected skin areas with warm soapy water. Skin contact causes photosensitization which can last for 36-72 hours after exposure. Keep out of direct sunlight for the next two to three days to avoid sunburn to the photosensitized skin areas. Use a broad spectrum blockout cream to protect against UV alpha ray exposure. Get medical attention, if needed.

Eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Then get immediate medical attention.

Ingestion
Not a likely route of exposure. Do NOT induce vomiting. If a large amount is swallowed, get medical attention. Do not give anything by mouth to unconscious or convulsive person. If vomiting occurs, keep head lower than hips to help prevent aspiration.
Most Important Symptoms/Effects

Acute
allergic reactions

Delayed
allergic reactions, mutagenic effects, Reproductive Effects, lung cancer, bladder cancer, skin cancer, scrotal cancer

Indication of any immediate medical attention and special treatment needed
Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
regular dry chemical, carbon dioxide, regular foam, water spray, fog or mist

Unsuitable Extinguishing Media
Do not use high-pressure water streams.

Special Hazards Arising from the Chemical
Dust/air mixtures may ignite or explode. Minimum dust concentration required is 0.35 oz/ft3. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire conditions, vapors and decomposition products may be released, forming toxic and/or flammable/explosive mixtures in air.

Hazardous Combustion Products
Oxides of carbon, oxides of nitrogen, oxides of sulfur, polynuclear aromatic hydrocarbons

Fire Fighting Measures
Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Use extinguishing agents appropriate for surrounding fire. Flood with fine water spray. Directly spraying water or foam onto hot burning product may cause frothing. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. When the solid material is heated (as in a fire) it will melt and begin to flow. The molten material may be chilled and solidified using a water fog or fine water spray.

Special Protective Equipment and Precautions for Firefighters
Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up
Stop leak if possible without personal risk. Shovel solidified material into containers for recycle if clean or disposal if contaminated. The solid or solidified spillage should be cleaned up as quickly as possible. Spilled material in a traffic area will break down with mechanical contact (e.g. vehicle tires) and become a wind borne dust. Solid material spillage may be wet down with a fine water spray to suppress dust during cleanup. If sweeping of a contaminated area is necessary, use a dust suppressant agent. Collect spill using a vacuum cleaner with a HEPA filter or wet and scoop up dry spills. Avoid sweeping spilled dry material. Eliminate ignition sources including sources of electrical, static or frictional sparks. Collect spilled material in appropriate container for disposal. In Canada, report releases to provincial authorities, municipal authorities, or both, as required. Due to the concentration of Benzo(a)pyrene and the CERCLA (40 CFR 302.4) reportable quantity of 1 pound, the release of 60 pounds (5.5
Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Avoid breathing dust. Avoid contact with eyes, skin and clothing. When using do not eat, drink or smoke. Wear protective gloves/clothing and eye/face protection. Wash exposed areas thoroughly with soap and water, or a waterless hand cleaner, after skin contact and before eating, drinking, using tobacco products, or restrooms. Use protective skin cream on exposed skin before and during work shift. To reduce sun sensitivity a sun-blocking lotion can also be applied prior to application of a protective cream. Contaminated clothing should be removed and laundered before reuse. Contaminated work clothing should not be allowed out of the workplace unless laundered or decontaminated. After working with the product use warm soapy water and a wash cloth to thoroughly wash all areas of skin that have been contacted with product. After washing, apply a broad spectrum UV blockout cream on exposed skin areas before going into sunlight. Keep out of strong sunlight for two to three days after being affected by the product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions.

Conditions for Safe Storage, Including any Incompatibilities
Store locked up.
Store and handle in accordance with all current regulations and standards. Label all containers. Store in metal containers. Avoid use of plastic containers. Keep in a well-ventilated place. Keep away from heat, sparks and naked flames. Protect from physical damage. Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30).

Incompatible Materials
oxidizing materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal tar pitches</td>
<td>65996-93-2</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>0.2 mg/m³ TWA as benzene-soluble aerosol</td>
</tr>
<tr>
<td>OSHA (US):</td>
<td>0.2 mg/m³ TWA (benzene soluble fraction)</td>
</tr>
</tbody>
</table>

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
Coal tar pitches (65996-93-2)
Medium: urine Time: end of shift at end of workweek Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)

Engineering Controls
Provide local exhaust or process enclosure ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment
Eye/face protection
ANSI Z87.1-1989 approved safety glasses with side shields. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. At elevated temperatures: A face shield is recommended.
Skin Protection
Wear protective clothing to prevent contact. Wear long sleeved shirt or overalls fastened at wrists and neck, with long legged trousers with trouser legs worn outside over boot tops, boots, socks, and safety hat plus gloves. Use protective skin cream on exposed skin before and during work shift. Protective clothing must be changed when it shows signs of contamination. Remove and launder contaminated clothing separately from other laundry before reuse. When material is at an elevated temperature, wear appropriate heat resistant clothing.

Respiratory Protection
If the applicable TLVs and/or PELs are exceeded, use NIOSH-approved multipurpose air-purifying cartridge respirators, for organic vapors and P-100 particulate. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known, or any other circumstance where air-purifying respirators may not provide adequate protection.

Glove Recommendations
Wear appropriate chemical resistant gloves. When material is at an elevated temperature, wear appropriate heat resistant gloves.

Protective Materials
protective skin creams, chemical resistant material, heat resistant material

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>black solid</td>
</tr>
<tr>
<td>Odor</td>
<td>none at room temperature</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>40 - 180 °C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;240 °C</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>&gt;399 °C</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>(Insoluble, Almost)</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>&gt;1.297</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Log KOW | 5.98 (approximate)
---|---
Physical Form | solid at room temperature, changes from solid to liquid as temperature increases
Molecular Weight | Not available
OSHA Flammability Category | 4

Other Information
None known.

**Section 10 - STABILITY AND REACTIVITY**

**Reactivity**
No reactivity hazard is expected.

**Chemical Stability**
Stable at normal temperatures and pressure.

**Possibility of Hazardous Reactions**
Will not polymerize.

**Conditions to Avoid**
Avoid accumulation of airborne dusts. Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials. Contact with water at elevated temperatures may cause violent foaming or explosion. Keep out of water supplies and sewers.

**Incompatible Materials**
oxidizing materials

**Hazardous decomposition products**
oxides of carbon, oxides of nitrogen, oxides of sulfur, polynuclear aromatic hydrocarbons

**Section 11 - TOXICOLOGICAL INFORMATION**

**Information on Likely Routes of Exposure**

**Inhalation**
lung cancer, bladder cancer

**Skin Contact**
sensitivity to sunlight, allergic reactions, Reproductive Effects, skin cancer, scrotal cancer

**Eye Contact**
sensitivity to sunlight

**Ingestion**
No information on significant adverse effects.

**Acute and Chronic Toxicity**

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and the following selected endpoints are published:

**Coal tar pitches (65996-93-2)**
Oral LD50 Rat 3300 mg/kg
Dermal LD50 Rat >5000 mg/kg (no deaths occurred)

**Product Toxicity Data**

**Product Analysis LD/LC 50 Toxicity Values**
Safety Data Sheet

Material Name: CARBON PITCH SOLID

| Oral LD50: | Rat >15000 mg/kg LD50 |
| Dermal LD50: | Rat >2000 mg/kg |

**Acute Toxicity Estimate**
No data available.

**Immediate Effects**
allergic reactions.

**Delayed Effects**
allergic reactions, mutagenic effects, Reproductive Effects, lung cancer, bladder cancer, skin cancer, scrotal cancer

**Irritation/Corrosivity Data**
Erythema/eschar score: 0, Oedema score: 0

**Respiratory Sensitization**
No test data available.

**Dermal Sensitization**
Component data indicate the substance is sensitizing.

**Component Carcinogenicity**

<table>
<thead>
<tr>
<th>Coal tar pitches</th>
<th>65996-93-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH:</td>
<td>A1 - Confirmed Human Carcinogen</td>
</tr>
<tr>
<td>IARC:</td>
<td>Monograph 100F [2012] ; Supplement 7 [1987] ; Monograph 35 [1985] (Group 1 (carcinogenic to humans))</td>
</tr>
<tr>
<td>NTP:</td>
<td>Known Human Carcinogen</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>potential occupational carcinogen</td>
</tr>
</tbody>
</table>

May cause cancer. NOAEL: 400 mg/kg oral-rat. An animal study may suggest an association between lung cancer and pulmonary deposition of particulate matter originating from coal tar pitches.

**Germ Cell Mutagenicity**
Available data characterizes this substance as mutagenic. May cause genetic defects.

**Tumorigenic Data**
No data available

**Reproductive Toxicity**
Available data characterizes this substance as a reproductive hazard. May cause harm to the unborn child. Possible risk of impaired fertility.

**Specific Target Organ Toxicity - Single Exposure**
No data available.

**Specific Target Organ Toxicity - Repeated Exposure**
No data available.

**Aspiration hazard**
No data available.
Safety Data Sheet

**Material Name:** CARBON PITCH SOLID

**SDS ID:** 00227841

---

**Medical Conditions Aggravated by Exposure**

respiratory disorders, skin disorders

**Additional Data**

This product is coal tar pitch. Volume 35 of the IARC monograph states that there is sufficient evidence that coal tar pitches are carcinogenic in humans. IARC’s conclusion is based upon studies suggesting an association between skin cancer and chronic occupational dermal exposure to coal tar pitches and upon other historical studies and anecdotal reports showing an association between dermal exposure to coal tar pitch and scrotal cancer in the absence of good hygiene practices. Epidemiological studies of aluminum reduction workers showed an excess risk of developing bladder cancer for workers with chronic inhalation overexposure to coal tar pitch volatiles in excess of the recommended permissible exposure level. Studies also suggest an association between lung cancer and chronic inhalation overexposure to coal tar pitch volatiles in excess of the recommended permissible exposure level. An animal study may suggest an association between lung cancer and pulmonary deposition of particulate matter originating from coal tar pitches.

**Section 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity**

May cause long-term adverse effects in the aquatic environment.

**Component Analysis - Aquatic Toxicity**

No LOLI ecotoxicity data are available for this product's components.

**Fish Toxicity**

Not considered toxic to fish. Not toxic at limit of water solubility.

**Invertebrate Toxicity**

HIGH-TEMP. COAL TAR PITCH: >100 mg/l 48 hours EC50 Daphnia magna. EL50 96 hours ~100 mg/l Daphnia. EL50 48 hours >100 mg/l Algae. EL50 72 hours >100 mg/l Daphnia. ~100 mg/l Daphnia - NOELR 21 days. ~10 mg/l Algae - NOELR 72 hours.

**Algal Toxicity**

HIGH-TEMP. COAL TAR PITCH: >8000 mg/l 72 hours EC50 Scenedesmus subspicatus.

**Persistence and Degradability**

This substance is not expected to biodegrade. Insoluble in water.

**Bioaccumulative Potential**

Not bioaccumulating due to solubility and chemical structure. This material is believed not to bioaccumulate. Highly insoluble in water.

**Mobility**

This substance is expected to be immobile in soil. Insoluble in water.

**Other Toxicity**

No data available.

**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Dispose in accordance with all applicable regulations.

**Component Waste Numbers**

The U.S. EPA has not published waste numbers for this product’s components.

**Section 14 - TRANSPORT INFORMATION**

**US DOT Information:**

**Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. , (Contains:
Material Name: CARBON PITCH SOLID

SDS ID: 00227841

BENZO(A)PYRENE, BENZO(B)FLUORANTHENE RQ

Hazard Class: 9
UN/NA #: UN3077
Packing Group: III
Required Label(s): 9

Further information: This material contains reportable quantity (RQ) Hazardous Substances.

IATA Information:
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Contains: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE) RQ
Hazard Class: 9
UN#: UN3077
Packing Group: III
Required Label(s): 9

Further information: Passenger & Cargo Aircraft - Ltd. Qty. - (Packing Instruction / Max. Net Qty. per Pkg.): Y956 / 30 kg G, Passenger Aircraft (Packing Instruction / Max. Net Qty. per Pkg.): 956 / 400 kgs, Cargo Aircraft (Packing Instruction / Max. Net Qty. per Pkg.): 956 / 400 kgs, ERG Code: 9L

TDG Information:
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (Contains: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE) RQ
Hazard Class: 9
UN#: UN3077
Packing Group: III
Required Label(s): 9

International Bulk Chemical Code
This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

<table>
<thead>
<tr>
<th>Coal tar pitches</th>
<th>65996-93-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBC Code:</td>
<td>Category X (molten)</td>
</tr>
</tbody>
</table>

Further information
STCC Code: 2899868; HAZ STCC Code: 4966997, ERG: 171 US DOT Reportable Quantities
BENZO(A)PYRENE (50-32-8) 1 lbs RQ; 0.454 kg RQ BENZO(B)FLUORANTHENE (205-99-2) 1 lbs RQ; 0.454 kg RQ

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<table>
<thead>
<tr>
<th>Benz[a]pyrene</th>
<th>50-32-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 313:</td>
<td>0.1 % Supplier notification limit</td>
</tr>
<tr>
<td>CERCLA:</td>
<td>1 lb final RQ ; 0.454 kg final RQ</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
</tr>
<tr>
<td>Chemical</td>
<td>CAS Number</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Dibenz[a,h]pyrene</td>
<td>189-64-0</td>
</tr>
<tr>
<td>Dibenz[a,h]anthracene</td>
<td>53-70-3</td>
</tr>
<tr>
<td>Benzo(ghi)perylene</td>
<td>191-24-2</td>
</tr>
<tr>
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</tr>
<tr>
<td>Chrysene</td>
<td>218-01-9</td>
</tr>
<tr>
<td>Benzo[a]anthracene</td>
<td>56-55-3</td>
</tr>
<tr>
<td>Anthracene</td>
<td>120-12-7</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene</td>
<td>207-08-9</td>
</tr>
</tbody>
</table>
## SARA 313
- Benzo(j)fluoranthene
  - CAS: 205-82-3
  - Limit: 0.1 % Supplier notification limit

## CERCLA
- Benzo(j)fluoranthene
  - Quantity: 5000 lb final RQ ; 2270 kg final RQ

## SAR 313
- Dibenzo(a,i)pyrene
  - CAS: 189-55-9
  - Limit: 0.1 % Supplier notification limit

## CERCLA
- Dibenzo(a,i)pyrene
  - Quantity: 10 lb final RQ ; 4.54 kg final RQ

## Phenanthrene
- CAS: 85-01-8
  - Limit: 1 % de minimis concentration

## CERCLA
- Phenanthrene
  - Quantity: 5000 lb final RQ ; 2270 kg final RQ

## SAR 313
- Dibenzo(a,e)pyrene
  - CAS: 192-65-4
  - Limit: 0.1 % Supplier notification limit

## CERCLA
- Dibenzo(a,e)pyrene
  - Quantity: 100 lb final RQ ; 45.4 kg final RQ

## Dibenzo(j)fluoranthene
  - Limit: 0.1 % Supplier notification limit

## CERCLA
- Indeno(1,2,3-cd)pyrene
  - Quantity: 100 lb final RQ ; 45.4 kg final RQ

## Phenanthrene
- CAS: 83-32-9
  - Limit: 100 lb final RQ ; 45.4 kg final RQ

## CERCLA
- Phenanthrene
  - Quantity: 5000 lb final RQ ; 2270 kg final RQ

## Dibenzo(j)fluoranthene
- CAS: 132-64-9
  - Limit: 1 % de minimis concentration

## CERCLA
- Dibenzo(j)fluoranthene
  - Quantity: 100 lb final RQ ; 45.4 kg final RQ

## Fluorene
- CAS: 86-73-7
  - Limit: Yes

## CERCLA
- Fluorene
  - Quantity: 5000 lb final RQ ; 2270 kg final RQ

### SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories
- Combustible Dust; Carcinogenicity; Reproductive Toxicity; Respiratory/Skin Sensitization; Germ Cell Mutagenicity

### U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<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>Coal tar pitches</td>
<td>65996-93-2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
WARNING

This product can expose you to chemicals including Benzo[a]pyrene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Canada Regulations

Canadian WHMIS Ingredient Disclosure List (IDL)
Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal tar pitches</td>
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<tr>
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<tr>
<td>Fluoranthene</td>
<td>206-44-0</td>
<td>1 %</td>
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<td>53-70-3</td>
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### WHMIS Classification

D2A, D2B

### Component Analysis - Inventory

**Coal tar pitches (65996-93-2)**

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**Benzo[a]pyrene (50-32-8)**

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**Fluoranthene (206-44-0)**

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**Dibenzo(a,h)pyrene (189-64-0)**

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## Dibenzo(a,i)pyrene (189-55-9)

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### Indeno(1,2,3-cd)pyrene (193-39-5)

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### Acenaphthene (83-32-9)

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### Fluorene (86-73-7)
Safety Data Sheet

Material Name: CARBON PITCH SOLID

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**U.S. Inventory (TSCA)**

Listed on inventory.

**Section 16 - OTHER INFORMATION**

**NFPA Ratings**

Health: 2 Fire: 1 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Summary of Changes**

Updated: 07/19/2018; MSDS SUMMARY OF CHANGES: SECTION 15 - CA Proposition 65

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); ENCS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); LD50/LC50 - Lethal Dose/Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’S Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MXE - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH-Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations/North American; US - United States; UEL - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

**Other Information**

**Disclaimer:**
Material Name: CARBON PITCH SOLID

The information set forth in this Safety Data Sheet does not purport to be all-inclusive and should be used only as a guide. While the information and recommendations set forth herein are believed to be accurate, the company makes no warranty regarding such information and recommendations and disclaims all liability from reliance thereon.