Section 1. Product and Company Identification

Product Name: Benzo[a]pyrene
Product ID: B1652
Chemical Name (Synonyms): 1,2-benzpyrene; 1,2-benzopyrene, 6,7-benzopyrene; benzo[a]pyrene; BP; 3,4-benzylpyrene; 3,4-benz[a]pyrene; 3,4-BP; 3,4-benzopyrene
Supplier: LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com
Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification:
- Skin sensitization (Category 1), H317
- Germ cell mutagenicity (Category 1B), H340
- Carcinogenicity (Category 1B), H350
- Reproductive toxicity, H360
- Acute aquatic toxicity (Category 1), H400
- Chronic aquatic toxicity (Category 1), H410

GHS Label elements including precautionary statements

Pictogram

Signal word: Danger

Hazard statements
- H317 - May cause an allergic skin reaction.
- H340 - May cause genetic defects.
- H350 - May cause cancer.
- H360 - May damage fertility or the unborn child.
- H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P261 - Avoid breathing dust, fumes, gas, mist, vapors and spray.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves.
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P308 + P313 - If exposed or concerned: Get medical advice and attention.
- P333 + P313 - If skin irritation or rash occurs: Get medical advice and attention.
- P363 - Wash contaminated clothing before reuse.
- P391 - Collect spillage.
- P405 - Store locked up.
- P501 - Dispose of contents and container to an approved waste disposal plant.

HMIS Classification
- Health hazard: 3
- Chronic health hazard: *
- Flammability: 0
- Physical hazard: 0

NFPA Rating
- Health hazard: 3
- Fire hazard: 0
- Reactivity hazard: 0

Potential Health Effects
- Inhalation - May be harmful if inhaled. May cause respiratory irritation.
- Skin - May be harmful if absorbed through skin. May cause an allergic skin reaction.
- Eyes - May cause eye irritation. Ingestion - May be harmful if swallowed.
Germ Cell Mutagenicity - May cause genetic defects. Carcinogenicity - May cause cancer. Reproductive toxicity - May damage fertility or the unborn child.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>Formula Wt.</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C\textsubscript{20}H\textsubscript{12}</td>
<td>252.32</td>
<td>50-32-8</td>
<td>200-028-5</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact
Flush eyes with water as a precaution.

Skin Contact
Wash off with soap and plenty of water. Consult a physician.

Inhalation
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Firefighting Measures

Flash Point
Not available.

Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical, carbon dioxide.

Firefighting Procedures
Wear self-contained breathing apparatus for firefighting if necessary.

Unusual Fire Hazards
Carbon oxides.

Section 6. Accidental Release Measures

Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleanup
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: Ambient

Hazardous Decomposition Products
Other decomposition products - Not available.

Other Remarks
**Section 8. Exposure Controls/Personal Protection**

**Personal protective equipment**

EXPOSURE CONTROLS
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

PERSONAL PROTECTION

Eye/face protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full and Splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11mm, Break through time: 460 min., Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).

Body protection:
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. IF the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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**Section 9. Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid.</td>
</tr>
<tr>
<td>Color</td>
<td>Bright yellow, slightly greenish crystals; fluffy</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>494-496˚C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>176°C-178°C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in chloroform, benzene, toluene, or xylene.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>log Pow: 5.97</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td>Odor</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
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</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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**Section 10. Stability and Reactivity**

Stability

Stable under recommended storage conditions.

Materials To Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

Other decomposition products - Not available.
Section 11. Toxicological Information

**Oral LD50** Not available.

**Skin corrosion/irritation** Skin - mouse. Result: Mild skin irritation.

**Inhalation LC50** Not available.

**Serious eye damage/irritation** Not available.

**Dermal LD50** Not available.

**Respiratory or skin sensitization** Chronic exposure may cause dermatitis.

**Other information on acute toxicity** Not available.

**Skin corrosion/irritation** Skin - mouse. Result: Mild skin irritation.

**Germ cell mutagenicity** May alter genetic material. In vivo tests showed mutagenic effects.

**Aspiration Hazard** Not available.

**Synergistic effects** Not available.

**Potential Health Effects**
- **Inhalation** - May be harmful if inhaled. May cause respiratory irritation.
- **Skin** - May be harmful if absorbed through skin. May cause an allergic skin reaction.
- **Eyes** - May cause eye irritation.
- **Ingestion** - May be harmful if swallowed.
- **Germ Cell Mutagenicity** - May cause genetic defects.
- **Carcinogenicity** - May cause cancer.
- **Reproductive toxicity** - May damage fertility or the unborn child

**Carcinogenicity** Possible human carcinogen.

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

- **IARC**: 1 - Group 1: Carcinogenic to humans (Benzo[a]pyrene).
- **OSHA**: OSHA specifically regulated carcinogen (Benzo[a]pyrene).

Section 12. Ecological Information

**Toxicity** Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 0.25 mg.

Toxicity to algae: EC50-Pseudokirchneriella subcapitata (green algae) - 0.02 mg/l - 72 h

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not available.
Section 13. Disposal Considerations

Waste Disposal
Dispose of material according to all federal, state, and local regulations. Offer material to a licensed, professional waste disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

Section 14. Transport Information

DOT (US) UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Benzo[a]pyrene) Reportable Quantity (RQ): 1lbs. Poison inhalation hazard: No

IATA UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Benzo[a]pyrene)

IMDG UN number: 3077 Class: 9 Packing group: III EMS #: F-A, S-F Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo[a]pyrene)

Further Information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packaging and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

Section 15. Regulatory Information

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components The following components are subject to reporting levels established by SARA Title III, Section 313: Benzo[a]pyrene CAS #: 50-32-8 Revision Date: 2007-03-01

SARA 311/312 Components Acute health hazard, chronic health hazard.

Massachusetts Right To Know Components Benzo[a]pyrene CAS #: 50-32-8 Revision Date: 2007-03-01

Pennsylvania Right To Know Components Benzo[a]pyrene CAS #: 50-32-8 Revision Date: 2007-03-01

New Jersey Right To Know Components Benzo[a]pyrene CAS #: 50-32-8 Revision Date: 2007-03-01

California Prop 65 Components WARNING! This product contains a chemical known to the State of California to cause cancer. Benzo[a]pyrene CAS #: 50-32-8 Revision Date: 1990-01-01

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.