1. **Product and Company Identification**
   
   **Product Name**: Benzoyl Peroxide (Catalyst for Mercox)
   
   **Product Catalog Number(s)**: 21246A, 21246A5
   
   **Identified Uses**: Laboratory Chemicals, Manufacture of substances
   
   **Supplier of the Safety Data Sheet**:
   
   Ladd Research
   
   83 Holly Court
   
   Williston, VT 05495
   
   **Telephone**: (802) 658-4961
   
   **FAX**: (802) 660-8859
   
   **Emergency Telephone Number**: (800) 424-9300 (Chemtrec)

2. **Hazards Identification**
   
   **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**
   
   Organic peroxides (Type E), H242
   
   Eye irritation (Category 2A), H319
   
   Skin sensitization (Category 1), H317
   
   Reproductive toxicity (Category 1B), H360
   
   Acute aquatic toxicity (Category 1), H400

   **GHS Label elements, including precautionary statements**

   Pictogram(s)

   - Danger
   
   **Hazard statement(s)**
   
   H242  Heating may cause a fire
   
   H317  May cause an allergic skin reaction
   
   H319  Causes serious eye irritation
   
   H360  May damage fertility or the unborn child
   
   H410  Very toxic to aquatic life with long lasting effects

   **Precautionary statement(s)**
   
   P201  Obtain special instructions before use
   
   P202  Do not handle until all safety precautions have been read and understood
P210  Keep away from heat/sparks/open flames/hot surfaces. NO SMOKING
P220  Keep/Store away from clothing/combustible materials
P234  Keep only in original container
P261  Avoid breathing dust/fume/gas/mist/vapors/spray
P264  Wash skin thoroughly after handling
P272  Contaminated work clothing should not be allowed out of the workplace
P273  Avoid release to the environment
P280  Wear protective gloves and clothing/eye protection/face protection
P302 + P352  IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
P308 + P313  IF exposed or concerned: Get medical advice / attention
P321  Specific treatment (see supplemental first aid instructions in this SDS
P333 + P313  If skin irritation or rash occurs: Get medical advice / attention
P337 + P313  If eye irritation persists: Get medical advice /attention
P363  Wash contaminated clothing before reuse.
P391  Collect spillage
P405  Store locked up
P410  Protect from sunlight
P411 + P235  Store at temperatures not exceeding 30°C/86°F. Keep cool
P420  Store away from other materials
P501  Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified or not covered by GHS
None

3. Composition/Information on Ingredients

Synonyms: Benzoyl peroxide, blend in dibutyl phthalate. Dibenzoyl peroxide
Formula: C_{14}H_{10}O_{4}
Molecular Weight: 242.23 g/mol

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl phthalate</td>
<td>Repr. 1B; Aquatic Acute 1; H360, H400</td>
<td>≥30 - &lt;50 %</td>
</tr>
</tbody>
</table>

Dibutyl phthalate is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No 1907/2006 (REACH)
CAS No: 84-74-2
EC No: 202-327-6
Index No: 607-318-00-4
Registration Number: 01-2119493042-44-XXXX
Benzoyl Peroxide
CAS No: 94-36-0  Org. Perox. B; Eye Irrit. 2A; ≥30 - <50 %
EC No: 202-327-6  Skin Sens. 1; Aquatic Acute 1;
Index No: 617-008-00-0  Aquatic Chronic 1; H241
                      H317, H319, H241, H317,
                      H319, H410

Calcium Stearate
CAS No: 1592-23-0  ≥ 1 - < 5%
EC No: 26-472-8

Silane, dichlorodimethyl-, reaction products with silica
CAS No: 68611-44-9  Acute Tox. 2; H330  ≥ 1 - < 5%

4. First Aid Measures
General Advice: Consult a physician. Show this SDS to the doctor in attendance. Move out
of dangerous area.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial
respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty water for at least 15 minutes and
consult a physician.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with
water. Consult a physician.

5. Firefighting Measures
Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special Hazards arising from the substance or mixture: No data available
Advice for firefighters: Wear self-contained breathing apparatus if necessary.
Further Information: Use water spray to cool unopened containers.

6. Accidental Release Measures
Personal precautions, protective equipment and emergency procedures: Use personal
protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure
adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**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 cleaning up**: Sweep up and shovel. Contain spillage, then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

*For Disposal see section 13*

7. **Handling and Storage**

**Precautions for safe 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. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition.

**Conditions for safe storage, including any incompatibilities**: Store in original container. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature is 2 - 8°C.

8. **Exposure Controls / Personal Protection**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl phthalate</td>
<td>84-74-2</td>
<td>TWA</td>
<td>5.00 mg/m³</td>
<td>ACGIH TLV</td>
</tr>
<tr>
<td>Benzoyl peroxide</td>
<td>94-36-0</td>
<td>TWA</td>
<td>5.00 mg/m³</td>
<td>ACGIH TLV</td>
</tr>
<tr>
<td>Calcium stearate</td>
<td>1592-23-0</td>
<td>TWA</td>
<td>10.00 mg/m³</td>
<td>ACGIH TLV</td>
</tr>
</tbody>
</table>

**Engineering Controls**: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

**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 product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**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).

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

9. **Physical and Chemical Properties**
   - **Appearance**: White paste
   - **Odor**: No data available
   - **Melting Point**: No data available
   - **Boiling Point**: 81°C
   - **Flash Point**: 95°C
   - **Evaporation Rate**: No data available
   - **pH**: No data available
   - **Vapor Density**: No data available
   - **Water solubility**: No data available
   - **Auto-Ignition Temperature**: No data available
   - **Decomposition Temperature**: No data available
   - **Viscosity**: No data available

10. **Stability and Reactivity**
    - **Reactivity**: No data available
    - **Chemical Stability**: Stable under recommended storage conditions.
    - **Possibility of Hazardous Reactions**: No data available
    - **Conditions to Avoid**: Heat, flame and sparks
    - **Incompatible Materials**: Strong acids, strong bases, oxidizing agents, amines, polymerizing initiators, reducing agents
    - **Hazardous Decomposition Products**: No data available

11. **Toxicological Information**
    - **Acute Toxicity**: No data available
    - **Skin Corrosion/Irritation**: No data available
    - **Serious Eye Damage/Eye Irritation**: No data available
    - **Respiratory or Skin Sensitization**: No data available
    - **Germ Cell Mutagenicity**: No data available
Carcinogenicity

**IARC**: Group 3: Not classifiable as to its’ carcinogenicity to humans (benzoyl peroxide)

**NTP**: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA**: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity**: No data available

**Specific Target Organ Toxicity – Single Exposure**: No data available

**Specific Target Organ Toxicity – Repeated Exposure**: No data available

**Aspiration Hazard**: No data available

12. Ecological Information

**Toxicity**: No data available

**Persistence and Degradability**: No data available

**Bioaccumulative Potential**: No data available

**Mobility in Soil**: No data available

**Other Adverse Effects**: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

13. Disposal Considerations

**Waste Treatment Methods**

**Product**: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated Packaging**: Dispose of as unused product.

14. Transport Information

**DOT (US)**

UN Number: 3108  Class: 5.2  Packing Group: II

Proper shipping name: Organic peroxide type E, solid (Dibenzoyl peroxide)

Reportable Quantity (RQ): 25 lbs.

**IMDG**

UN Number: 3108  Class 5.2  EMS-No: F-J, S-R

Proper shipping name: Organic peroxide type E, Solid (Dibenzoyl peroxide)

Marine pollutant: Yes

**IATA**
UN Number: 3108  Class: 5.2 (Heat)
Proper shipping name: Organic peroxide type E, solid (Dibenzoyl peroxide)

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:

Dibutyl phthalate  CAS No: 84-74-2  Revision Date: 2007-07-1
Benzoyl peroxide  CAS No: 94-36-0  Revision Date: 2007-07-1

SARA 311/312 Hazards: Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components:
Dibutyl phthalate  CAS No: 84-74-2  Revision Date: 2007-07-1
Benzoyl peroxide  CAS No: 94-36-0  Revision Date: 2007-07-1

Pennsylvania Right to Know Components:
Dibutyl phthalate  CAS No: 84-74-2  Revision Date: 2007-07-1
Benzoyl peroxide  CAS No: 94-36-0  Revision Date: 2007-07-1
Water  CAS No: 7732-18-5

New Jersey Right to Know Components:
Dibutyl phthalate  CAS No: 84-74-2  Revision Date: 2007-07-1
Benzoyl peroxide  CAS No: 94-36-0  Revision Date: 2007-07-1
Water  CAS No: 7732-18-5
Calcium Stearate  CAS No: 1592-23-0

California Prop. 65 Components: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm -
Dibutyl phthalate  CAS No: 84-74-2  Revision Date: 2008-06-17

16. Other Information

Full text of H-Statements referred to under sections 2 and 3

Acute Tox.   Acute toxicity
Aquatic Acute  Acute aquatic toxicity
Aquatic Chronic  Chronic aquatic toxicity
Eye Irrit.   Eye irritation
H241   Heating may cause a fire or explosion
H242   Heating may cause a fire

HMIS Rating
Health Hazard: 4
Chronic Health Hazard: *
Flammability: 1
Physical Hazard: 1

NFPA Rating
Health Hazard: 3
Fire Hazard: 1
Reactivity Hazard: 1
Special Hazard: OX

*******************************************************************

The information presented is believed to be correct and is the most accurate information available to us at this time. However, Ladd Research makes no warranty, express or implied, and assumes no liability for this information and the product described herein.