Section 1. Product and Company Identification

Product Name: Paclitaxel, semi-synthetic
Product ID: P0093
Chemical Name (Synonyms): Taxol; Taxol A; Paxene
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 irritation (Category 2), H315
- Skin sensitization (Category 1), H317
- Serious eye damage (Category 1), H318
- Respiratory sensitization (Category 1), H334
- Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
- Germ cell mutagenicity (Category 2), H341
- Reproductive toxicity (Category 2), H361
- Chronic aquatic toxicity (Category 4), H413

GHS Label elements including precautionary statements

Pictogram:
[Image of the GHS pictogram]

Signal word: Danger

Hazard statements:
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 - May cause respiratory irritation.
- H341 - Suspected of causing genetic defects.
- H361 - Suspected of damaging fertility or the unborn child.
- H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements:
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P261 - Do not breathe dust, fumes, gas, mist, vapors, spray.
- P264 - Wash skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves, eye protection, and face protection.
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
- P303 + P361 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P311 - Specific treatment (see supplemental first aid instructions on this label).
- P362 - Take off contaminated clothing and wash before reuse.
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification:
- Health hazard: 2
- Chronic health hazard: 0
- Flammability: 0
- Physical hazard: 0

NFPA Rating:
- Health hazard: 2
- Fire hazard: 0
- Reactivity hazard: 0

Potential Health Effects:
- Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Respiratory sensitization.
- Skin: May cause an allergic skin reaction. Causes skin irritation.
- Eyes: Causes serious eye damage.
- Ingestion: May be harmful if swallowed.
Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
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<tbody>
<tr>
<td>Formula</td>
<td>C_{47}H_{51}NO_{14}</td>
<td>853.9</td>
</tr>
<tr>
<td>CAS No.</td>
<td>33069-62-4</td>
<td>EC No.</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 for at least 15 minutes and consult a physician.

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, or carbon dioxide.

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

Unusual Fire Hazards
Carbon oxides, nitrogen oxides (NOx).

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.

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. 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: -20°C

Hazardous Decomposition Products
Not available.

Other Remarks
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**
- Contains no substances with occupational exposure limit values.
- 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: 0.11 mm, Break through time: 480 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).

Section 9. Physical and Chemical Properties

**Physical State**
- Solid.

**Color**
- White to off-white powder.

**Boiling Point**
- Not available.

**Melting Point**
- 213-217°C

**Solubility**
- Insoluble in water. Soluble in ethanol or DMSO (50mg/ml).

**pH**
- 3.0 - 8.0

**Flash Point**
- Not available.

**Lower explosion limit**
- Not available.

**Autoignition temperature**
- Not available.

**Upper explosion limit**
- Not available.

**Vapor pressure**
- Not available.

**Water solubility**
- Insoluble in water.

**Odor**
- Not available.

**Partition coefficient: n-octanol/water**
- log Pow: > 99

**Relative vapor density**
- Not available.

**Evaporation rate**
- Not available.

Section 10. Stability and Reactivity

**Stability**
- Stable under recommended storage conditions.

**Materials To Avoid**
- Oxidizing agents.

**Hazardous Decomposition Products**
- Not available.
Section 11. Toxicological Information

**Oral LD50** Not available.

**Inhalation LC50** Irritating to respiratory system.

**Dermal LD50** Not available.

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

**Skin corrosion/irritation** Not available.

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

**Respiratory or skin sensitization** Laboratory experiments have shown mutagenic effects.

**Germ cell mutagenicity** Not available.

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

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

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.

**Specific organ toxicity single exposure (GHS)** Inhalation - May cause respiratory irritation.

**Specific organ toxicity repeated exposure (GHS)** Not available.

**Teratogenicity** Not available.

**Reproductive Toxicity**

Maternal Effects: Other effects.

Effect on Fertility: Pre-implantation mortality.

Effect on Embryo or Fetus: Extra embryonic structures. Effects on newborn: Growth statistics, behavioral, physical. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

**Aspiration Hazard** Not available.

**Synergistic effects** Not available.

**Potential Health Effects**

Inhalation - May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Respiratory sensitization.

Skin - May cause an allergic skin reaction. Causes skin irritation.

Ingestion - May be harmful if swallowed.

Reproductive toxicity: Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Germ cell mutagenicity.

**Signs and symptoms of exposure** Alopecia, liver, and kidney injury may occur, nausea, headache, vomiting, bone marrow depression. Stomach, irregularities, based on human evidence.

Section 12. Ecological Information

**Toxicity** Not available.

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not possible.

**Possibility of hazardous reactions** Not available.

**Conditions to avoid** Not available.
Waste Disposal
Dispose of material according to all federal, state, and local regulations. Offer material to a licensed, professional waste disposal company to dispose of as unused product. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 13. Disposal Considerations

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA Not dangerous goods.

IMDG Not dangerous goods.

Further Information

Section 15. Regulatory Information

Reach No.

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

SARA 313 Components SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Paclitaxel CAS #: 33069-62-4 Revision Date:

New Jersey Right To Know Components Paclitaxel CAS #: 33069-62-4 Revision Date:

California Prop 65 Components WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.
Paclitaxel 33069-62-4 Revision Date: 2008-06-17

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.