Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/Trade Name: Clomiphene Citrate

Manufacturer: SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Clomid; Clomfeno; Cloramiphene; Clomiphine; Clomivid; Clomphid; Clostilbegyt; Dyneric; Fertivet; Genozym; Omifin

Synonym: Clomiphene dihydrogen citrate; 1-(p-(beta-Diethylaminoethoxy)phenyl)-1,2-diphenyl-2-chloroethylene citrate; 2-(p-(2-Chloro-1,2-diphenylvinyl)phenoxy)triethylamine citrate (1:1); 2-Chloro-1-(p-(beta-diethylaminoethoxy)phenyl)-1,2-diphenylethenylene citrate (1:1)

Chemical Name: Triethylamine, 2-(p-(2-chloro-1,2-diphenylvinyl)phenoxy)-; citrate (1:1)

Chemical Family: Not available.

Chemical Formula: C26-H28-Cl-N-O.C6-H8-O7

Catalog Number(s): C1521

CAS#: 50-41-9

RTECS: YE0875000

TSCA: TSCA 8(b) inventory: No products were found.

CI#: Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Clomiphene Citrate</td>
<td>50-41-9</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients

Clomiphene Citrate: ORAL (LD50): Acute: 1400 mg/kg [Rat]. 1400 mg/kg [Mouse].
Section 3. Hazards Identification

Potential Acute Health Effects  Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects  
- CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.
- MUTAGENIC EFFECTS: Not available.
- TERATOGENIC EFFECTS: Not available.
- DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact  Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact  Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact  Not available.

Inhalation  If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation  Not available.

Ingestion  Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion  Not available.

Section 5. Fire and Explosion Data

Flammability of the Product  May be combustible at high temperature.

Auto-Ignition Temperature  Not available.

Flash Points  Not available.

Flammable Limits  Not available.

Products of Combustion  These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), halogenated compounds.

Fire Hazards in Presence of Various Substances  Slightly flammable to flammable in presence of heat.

Explosion Hazards in Presence of Various Substances  
- Risks of explosion of the product in presence of mechanical impact: Not available.
- Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions  
- SMALL FIRE: Use DRY chemical powder.
- LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards  Not available.

Special Remarks on Explosion Hazards  Not available.
Section 6. Accidental Release Measures

Small Spill
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage
Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection
Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance
Solid. (Crystalline powder.)

Molecular Weight
598.08 g/mole

pH (1% soln/water)
Not available.

Odor
Odorless.

Taste
Not available.

Color
White to yellowish.

Not applicable.

Continued on Next Page
### Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Instability</td>
<td></td>
</tr>
<tr>
<td>Conditions of</td>
<td>Excess heat</td>
</tr>
<tr>
<td>Instability</td>
<td></td>
</tr>
<tr>
<td>Incompatibility</td>
<td>Not available.</td>
</tr>
<tr>
<td>with various</td>
<td></td>
</tr>
<tr>
<td>substances</td>
<td></td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks</td>
<td></td>
</tr>
<tr>
<td>on Reactivity</td>
<td></td>
</tr>
<tr>
<td>Special Remarks</td>
<td></td>
</tr>
<tr>
<td>on Corrosivity</td>
<td></td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Inhalation.  Ingestion.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to Animals</td>
<td>Acute oral toxicity (LD50): 1400 mg/kg [Mouse].</td>
</tr>
<tr>
<td>Chronic Effects</td>
<td>CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC.</td>
</tr>
<tr>
<td>on Humans</td>
<td>Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.</td>
</tr>
<tr>
<td>Other Toxic Effects</td>
<td></td>
</tr>
<tr>
<td>on Humans</td>
<td></td>
</tr>
<tr>
<td>Special Remarks</td>
<td>Not available.</td>
</tr>
<tr>
<td>on Toxicity to Animals</td>
<td></td>
</tr>
<tr>
<td>Special Remarks</td>
<td>May cause adverse reproductive effects and birth defects (teratogenic).</td>
</tr>
<tr>
<td>on Chronic Effects</td>
<td>May cause cancer based on animal test data</td>
</tr>
<tr>
<td>on other Toxic Effects</td>
<td></td>
</tr>
<tr>
<td>on Humans</td>
<td>Acute Potential Health Effects:</td>
</tr>
<tr>
<td></td>
<td>Skin: May cause skin irritation.</td>
</tr>
<tr>
<td></td>
<td>Eyes: May cause eye irritation.</td>
</tr>
<tr>
<td></td>
<td>Inhalation: Dust may cause respiratory tract irritation.</td>
</tr>
<tr>
<td></td>
<td>Ingestion: May be harmful if swallowed. Nausea, vomiting, constipation or diarrhea, flushing, hot flashes, abdominal discomfort (distention, bloating, pain, or soreness), ovarian enlargement in women, visual blurring and other visual symptoms, headache, dizziness, lightheadness, vertigo, fatigue, nervousness, insomnia, depression, breast discomfort in women, weight loss, abnormal uterine bleeding in women. May cause dermatitis or rash.</td>
</tr>
</tbody>
</table>

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Not available.</th>
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</thead>
<tbody>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td>Biodegradation</td>
<td>The products of degradation are as toxic as the product itself.</td>
</tr>
<tr>
<td>Special Remarks</td>
<td>Not available.</td>
</tr>
<tr>
<td>on the Products</td>
<td></td>
</tr>
<tr>
<td>of Biodegradation</td>
<td></td>
</tr>
</tbody>
</table>

Continued on Next Page
# Section 13. Disposal Considerations

**Waste Disposal**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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# Section 14. Transport Information

**DOT Classification**

Not a DOT controlled material (United States).

**Identification**

Not applicable.

**Special Provisions for Transport**

Not applicable.

**DOT (Pictograms)**

![DOT Pictogram](image)

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# Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute:

- Clomiphene Citrate

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Clomiphene Citrate

New Jersey: Clomiphene Citrate

**California Proposition 65 Warnings**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Clomiphene Citrate

**Other Regulations**

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications**

**WHMIS (Canada)**

WHMIS classification has not been established by CCOHS (Canadian Centre for Occupational Health and Safety) or CSST(Commission de la sante et de la securite du travail). However, it might be classified as CLASS D-2A: Material causing other toxic effects (VERY TOXIC) since there is some evidence regarding reproductive toxicity in animals and in humans.

**DSCL (EEC)**

R22- Harmful if swallowed. S46- If swallowed, seek medical advice immediately and show this container or label.

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**HMIS (U.S.A.)**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flammability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Specific hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Protection</th>
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<td>E</td>
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</table>

**WHMIS (Canada) (Pictograms)**

![WHMIS Pictogram](image)

**DSCL (Europe) (Pictograms)**

![DSCL Pictogram](image)

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continued on next page
# Protective Equipment

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent.
- Safety glasses.

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## Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>C4426</th>
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</thead>
<tbody>
<tr>
<td>References</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Special Considerations</td>
<td>Major Use: Medication</td>
</tr>
</tbody>
</table>

Validated by Sonia Owen on 11/1/2007.  
Verified by Sonia Owen.  
Printed 1/21/2008.

**Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.