1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product code:</th>
<th>D3414</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>DEOXYCORTICOSTERONE ACETATE</td>
</tr>
<tr>
<td>Chemical Name:</td>
<td>11-Deoxycorticosterone, acetate</td>
</tr>
</tbody>
</table>
## Synonyms:
- 21-Acetoxy-3,20-diketopregn-4-ene
- Arcort
- Cortacet
- Cortate
- Cortenil
- Cortesan
- Cortexone acetate
- Corticosterone, deoxy-, acetate
- Cortifar
- Cortigen
- Cortinaq
- Cortiron
- Cortivis
- Cortixyl
- Decortin
- Decosterone
- Decostrate
- 11-Deoxycorticosterone 21-acetate
- Krinocorts
- Sincortex
- Steraq
- Deoxycortone acetate
- Descorteron
- Descotone
- Desoxycorticosterone acetate
- Desoxycortone acetate
- DOC acetate
- Dorcostrin
- Doxycamon
- 21-Hydroxypregn-4-ene-3,20-dione 21-acetate
- Ocrinen
- Percorten
- Percotol
- Pregn-4-ene-3,20-dione, 21-hydroxy-, acetate
- 4-Pregnen-3,20-dione-21-ol acetate
- Primocort
- Primocortan
- Syncort
- Syncorta
- Syncortyl
- Unidocan

## Recommended use:
No information available.

## CAS #:
56-47-3

## Formula:
C23-H32-O4

## RTECS #:
HG0525000

## CI#:
Not available

## Supplier:
Spectrum Chemicals and Laboratory Products, Inc.
14422 South San Pedro St.
Gardena, CA  90248
(310) 516-8000

## Emergency Telephone Number:
CHEMTREC: 1-800-424-9300

## Contact Person:
- Martin LaBenz (West Coast)
- Chris Terpak (East Coast)
2. HAZARDS IDENTIFICATION

OSHA Regulatory Status
This material is not considered hazardous by the OSHA Hazard Communication Standard (29 1910.1200)

CHRONIC POTENTIAL HEALTH EFFECTS:

Component Carcinogen Status:
Deoxycorticosterone Acetate No information available
56-47-3 (100)

Target Organs: Adrenal gland.

Teratogenic Effects: No information available

Mutagenic Effects: No information available

Aggravated Medical Conditions: No information available

See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components | CAS-No. | Weight %
--- | --- | ---
Deoxycorticosterone Acetate | 56-47-3 | 100
3. COMPOSITION/INFORMATION ON INGREDIENTS
Deoxycorticosterone Acetate 56-47-3 100

4. FIRST AID MEASURES

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. In case of shortness of breath, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Notes to Physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F): No information available.

Tested according to: Not available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Autoignition Temperature (°C/°F): Not applicable.

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media: No information available.

Hazardous Combustion Products: Carbon monoxide; Carbon dioxide

Specific hazards: May be combustible at high temperatures. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: No information available.
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental Precautions:
No information available.

Methods for Cleaning Up:
Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice:
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Storage

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Protect from light. Store away from incompatible materials.

Incompatible Products:
Oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
Ensure adequate ventilation. 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 Protective Equipment

Eye protection: Safety glasses. Safety glasses with side-shields.
Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection: Wear respirator with dust filter..
Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

National occupational exposure limits

United States
U.S Occupational Exposure Limits: Not determined

Product code: D3414
Product name: DEOXYCORTICOSTERONE ACETATE
### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate - 56-47-3</td>
<td>None</td>
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#### Canada

**Canada Occupational Exposure Limits:** Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate 56-47-3</td>
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</table>

#### Australia and Mexico

**Occupational Exposure Limits for Australia and Mexico:** Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate 56-47-3</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical state:** Solid.
- **Appearance:** Crystalline powder. Granular.
- **Color:** White.
- **Odor:** No information available
- **Taste:** No information available
- **Flash point (°C):** Not applicable
- **Lower Explosion Limit (%):** Not applicable
- **Autoignition Temperature (°C/°F):** No information available
- **pH:** No information available
- **Decomposition temperature (°C/°F):** No information available
- **Boiling point/range (°C/°F):** No information available
- **Specific gravity:** No information available
- **Density (g/cm³):** No information available
- **Bulk density:** No information available
- **Evaporation rate:** No information available
- **Vapor density:** No information available
- **Odor threshold (ppm):** No information available
- **Partition coefficient (n-octanol/water):** No information available
- **Partition coefficient:** No information available

**Miscibility:** No information available

### 10. STABILITY AND REACTIVITY

- **Stability:** Stable at normal conditions
- **Conditions to avoid:** Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Exposure to light. Incompatible materials.

**Product code:** D3414

**Product name:** DEOXYCORTICOSTERONE ACETATE
Materials to avoid: Strong oxidising agents.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide.

Possibility of Hazardous Reactions: No information available

Polymerization: Hazardous polymerisation does not occur

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Deoxycorticosterone Acetate - 56-47-3

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information =
No information available

Product Information

LC50/inhalation/rat = No information available
LC50/Inhalation/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LD50/oral/mouse = No information available
LD50/oral/rat = No information available

Local Effects

Skin irritation: May cause skin irritation.
Eye irritation: Contact with eyes may cause irritation.
Inhalation: May cause irritation of respiratory tract.
Ingestion: May cause upset stomach. May cause vomiting. May cause disturbance of electrolyte balance which is manifest in the retention of sodium and water, with edema and hypertension, and in the increased excretion of potassium with the possibility of hypokalaemic alkalosis. Cardiac failure may be induced in sensitive individuals.
Sensitization: No information available

Chronic Toxicity

Product code: D3414
Product name: DEOXYCORTICOSTERONE ACETATE
Chronic Toxicity

Prolonged or repeated ingestion of corticosteroids may cause osteoporosis due to mobilization of calcium and phosphorus, development of glaucoma and cataracts, muscle weakness/muscle wasting, swelling of the feet or lower legs due sodium retention, hip or shoulder pain, irregular heartbeat. It may affect the liver, kidneys, pancreas (pancreatitis), blood (changes in serum composition), behavior/central nervous system (anxiety, nervousness or restlessness, trouble sleeping), mental disturbances such as psychosis, euphoria, depression, protein metabolism, lipid metabolism, carbohydrate metabolism causing insulin resistance, hyperglycemia, diabetes, and the immune system (immunosuppressant) causing increased susceptibility to infections. Repeated ingestion of large doses of corticosteroids may also produce other symptoms typical of hyperactivity of the adrenal gland and overproduction of cortisol (Cushing’s Syndrome) such moon-face, buffalo hump, increased bruising, ecchymoses, striae, and acne, menstrual irregularities, amenorrhea, sometimes hirsutism (deepening of the voice in women), and excess hair growth (in women).

Carcinogenic effects:

May cause cancer based on animal test data. Equivocal tumorigenic agent by RTECS criteria.

<table>
<thead>
<tr>
<th>Components</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA HCS - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects:

No information available

Reproductive Effects:

May cause adverse reproductive effects based on animal test data

Teratogenic Effects:

No information available

Target Organs:

Adrenal gland.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: No information available

Ecotoxicity effects: No data available.

Aquatic toxicity: No information available

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Product code: D3414

DEOXYCORTICOSTERONE ACETATE
14. TRANSPORT INFORMATION

DOT
- UN-No: Not regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: None
- Subsidiary Risk: Not applicable
- Marine Pollutant: No data available
- ERG No: No information available
- DOT RQ (lbs): No information available

TDG (Canada)
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available
- Subsidiary Risk: No information available
- Description: No information available

ADR
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available
- Subsidiary Risk: No information available
- Classification Code: No information available
- Description: No information available
- CEFIC Tremcard No: No information available

IMO / IMDG
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available
- Subsidiary Risk: No information available
- Description: No information available
- IMDG Page: No information available
- Marine Pollutant: No information available
- MFAG: No information available
- Maximum Quantity: No information available

RID
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available
- Subsidiary Risk: No information available
- Classification Code: No information available
- Description: No information available

ICAO
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available

Product code: D3414
Product name: DEOXYCORTICOSTERONE ACETATE
Subsidiary Risk: No information available
Description: No information available

IATA
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>Philippines (PICCS)</th>
<th>KOREA KECL</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
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<td>Not present</td>
<td>KE-00157</td>
<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
<td>200-275-9</td>
</tr>
</tbody>
</table>

U.S. Regulations


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
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<td>Not Listed</td>
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CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
<td>None</td>
<td>None</td>
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</table>

U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class: Non-controlled

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.
Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
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</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deoxycorticosterone Acetate</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

R-phrase(s)
not determined

S-phrase(s)
none

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
Not dangerous

16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1-2004 standards.

Preparation Date: 08-May-2012

Reason for revision: Not applicable

Prepared by: Sonia Owen

Literature reference: No information available

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. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. 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 assumes no responsibility for the completeness or accuracy of the information contained herein.

Product code: D3414

Product name: DEOXYCORTICOSTERONE ACETATE