

SAFETY DATA SHEET

Preparation Date: 11/8/2019

Revision date Not applicable

Revision Number: Not applicable

1. IDENTIFICATION

Product identifier

Product code: P4404
Product Name: PROGESTERONE, WETTABLE, POWDER, PHARMACEUTICAL GRADE

Other means of identification

Synonyms: Corpus luteum hormone
 delta(sup 4)-Pregnene-3,20-dione
 Pregn-4-ene-3,20-dione
 4-Pregnene-3,20-dione
 Pregnenedione
 Progesterol
 beta-Progesterone
 Prolutone
 Progesteronum
 Progestin
 Progestone
 Prolidon
 Syngesterone

CAS #: 57-83-0
RTECS # TW0175000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Laboratory reagent. Medication.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)


| | |
|-----------------|------------|
| Carcinogenicity | Category 2 |
|-----------------|------------|

| | |
|-----------------------|------------|
| Reproductive toxicity | Category 2 |
|-----------------------|------------|

Label elements

Warning

Hazard statements
 Suspected of causing cancer
 Suspected of damaging fertility or the unborn child



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight-% |
|--------------------------------------|-----------|----------|
| Progesterone (yam source) | 57-83-0 | 98-99.7 |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | 0.3-2 |

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms

persist, call a physician.

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

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms May cause eye irritation
May cause skin irritation

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO₂). Water spray. Foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous combustion products carbon oxides.

Specific hazards May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods: No information available

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice:

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

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

| Component | CAS No | OSHA | NIOSH | ACGIH | AIHA WEEL |
|--------------------------------------|-----------|------|-------|-------|-----------|
| Progesterone (yam source) | 57-83-0 | None | None | None | None |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | None | None | None | None |

Canada

| Component | CAS No | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|-----------|--------|------------------|---------------------------|------------------|-----------------|
|-----------|--------|------------------|---------------------------|------------------|-----------------|

| | | | | | |
|--------------------------------------|-----------|------|------|------|------|
| Progesterone (yam source) | 57-83-0 | None | None | None | None |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | None | None | None | None |

Australia and Mexico

| Component | CAS No | Australia | Mexico |
|--------------------------------------|-----------|-----------|--------|
| Progesterone (yam source) | 57-83-0 | None | None |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | None | None |

Appropriate engineering controls

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.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Solid

Appearance:
Microcrystalline solid powder.

Color:
White.

Odor:
Odorless.

Taste
No information available.

Formula
C₂₁H₃₀O₂

Molecular/Formula weight (g/mole):
314.47

Flammability (solid, gas)
no data available

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

Flash Point Tested according to:
Not available

Autoignition Temperature (°C/°F):
No information available

Lower Explosion Limit (%):
No information available

Upper Explosion Limit (%):
No information available

Melting point/range(°C/°F):
126-131°C/ 258.8-267.8°F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):

Product code: P4404

Product name: PROGESTERONE,
WETTABLE, POWDER,
PHARMACEUTICAL GRADE

Page 5 / 13

No information available

Bulk density:
No information available

Density (g/cm³):
No information available

Specific gravity:
1.17

pH
No information available

Vapor pressure @ 20°C (kPa):
No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
3.87

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Soluble in Acetone
Insoluble in cold water
Insoluble in hot water
Soluble in Alcohol
Soluble in dioxane
Soluble in Sulfuric acid
Soluble in Vegetable oils
Solubility in water: 8.81 mg/l @ 25°C

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Exposure to light. Incompatible materials.

Incompatible Materials: Oxidizing agents

Hazardous decomposition products: Carbon oxides.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Product code: P4404

Product name: PROGESTERONE,
WETTABLE, POWDER,
PHARMACEUTICAL GRADE

Page 6 / 13

Component Information

| | |
|---------------------------|---------|
| Progesterone (yam source) | |
| CAS No | 57-83-0 |

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 LC50information = No information available

| | |
|--------------------------------------|-----------|
| 1-Dodecane Sulfonic Acid Sodium Salt | |
| CAS No | 2386-53-0 |

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 LC50information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = No information available

LD50/oral/mouse =
Value - Acute Tox = No information available

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause respiratory tract irritation.

Ingestion May cause gastrointestinal (digestive) tract irritation with nausea, vomiting, diarrhea. May affect behavior/central nervous system (mood changes (depression of mood), easy fatigue, dizziness, drowsiness, headache, lack of initiative, ataxia,

convulsions), liver, blood (affect on coagulation factors).

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Ingestion: It can cause nausea, vomiting, and diarrhea. Prolonged or repeated ingestion may rarely cause skin rashes, photosensitivity, alopecia, and hirsutism (deepening of voice). However, chloasma (brownish macules on the face) may appear. It may also cause anovulation and amenorrhea, weight gain, decreased libido, bloating, increase in blood pressure, thromboembolic events, congestive heart failure, and affect the liver (jaundice, hepatitis), behavior/central nervous system (see acute ingestion), and blood (see acute ingestion), endocrine system (pancreas- hyperglycemia), metabolism (increase in LDL levels, increase in sodium levels).

Sensitization: No information available.

Mutagenic Effects: May affect genetic material

Carcinogenic effects: Limited evidence of a carcinogenic effect. Possibly carcinogenic to humans.

| Component | CAS No | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|--------------------------------------|-----------|--------------------------------|---------------------|---|------------------------|--|--|
| Progesterone (yam source) | 57-83-0 | Supplement 7 [1987] Progestins | Not listed | Reasonably Anticipated To Be A Human Carcinogen | Present | Not listed | Not listed |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

ACGIH (American Conference of Governmental Industrial Hygienists)

*IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity Suspected of damaging fertility or the unborn child

Reproductive Effects: May cause adverse reproductive effects
Progestins are reportedly distributed into milk. The possible effects of progestins in milk on nursing infants have not been determined.

Developmental Effects: No information available

Teratogenic Effects: May cause birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: Reproductive System.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

1-Dodecane Sulfonic Acid Sodium Salt - 2386-53-0

Fish 2.71-4.34 LC50 96 hours *Poecilia vivipara*
220 mg/l LC50 96 hours *Phoxinus phoxinus* (minnow)

Crustacea 135-220 mg/l EC50 24 hours *Daphnia magna*

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

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

| Component | CAS No | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|--------------------------------------|-----------|------------------------|------------------------|------------------------|------------------------|
| Progesterone (yam source) | 57-83-0 | None | None | None | None |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | None | None | None | None |

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class No information available

Subsidiary Class No information available

Packing group: No information available

Emergency Response Guide Number No information available

Marine Pollutant No data available

DOT RQ (lbs): No information available

Special Provisions No Information available

Symbol(s): No information available

Description: No information available

TDG (Canada)

UN-No: Not Regulated

Proper Shipping Name: No information available

Hazard Class No information available

Subsidiary Risk: No information available

Packing Group: No information available

Marine Pollutant No Information available

Description: No information available

ADR

UN Number Not regulated
Proper Shipping Name: No information available
Transport hazard class(es) No information available
Packing group No information available
Subsidiary Risk: No information available

IMDG

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

RID

UN Number Not Regulated
Proper Shipping Name: No information available
Transport hazard class(es) No information available
Subsidiary Risk: No information available
Packing group No information available

ICAO (air)

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

IATA

UN Number Not Regulated
Proper Shipping Name: No information available
Transport hazard class(es) No information available
Subsidiary Risk: No information available
Packing group No information available
Precautionary Statements - Response No information available
Special Provisions No information available

| |
|-----------------------------------|
| 15. REGULATORY INFORMATION |
|-----------------------------------|

International Inventories

| Component | CAS No | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | China IECSC | Australia (AICS) | EINECS-No. |
|---|-----------|---------------|------------------|---------------------|------------------|-------------|------------------|-------------------|
| <i>Progesterone (yam source)</i> | 57-83-0 | PresentACTIVE | Present KE-29250 | Present | Not present | Not listed | Present | Present 200-350-6 |
| <i>1-Dodecane Sulfonic Acid Sodium Salt</i> | 2386-53-0 | PresentACTIVE | Present KE-12849 | Present | Present (2)-1640 | Present | Present | Present 219-200-6 |

U.S. Regulations

Progesterone (yam source)

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1591
Pennsylvania RTK: Special hazardous substance

Product code: P4404

Product name: PROGESTERONE,
WETTABLE, POWDER,
PHARMACEUTICAL GRADE

Page 10 / 13

Pennsylvania RTK - Special Hazardous Substances Present

Minnesota - Hazardous Substance List: Present

California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

⚠️ WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

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)

| Component | CAS No | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|--------------------------------------|-----------|------------|------------------------|----------------------------|-------------------------------|
| Progesterone (yam source) | 57-83-0 | carcinogen | Not Listed | Not Listed | Not Listed |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Component | CAS No | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|--------------------------------------|-----------|---|---|--|---------------------------------|------------------------------------|
| Progesterone (yam source) | 57-83-0 | None | None | None | None | None |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | None | None | None | None | None |

U.S. TSCA

| Component | CAS No | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|--------------------------------------|-----------|---|--|
| Progesterone (yam source) | 57-83-0 | Not Applicable | Not Applicable |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not Applicable | Not Applicable |

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

| Component | CAS No | Canada (DSL) | Canada (NDSL) |
|--------------------------------------|-----------|--------------|---------------|
| Progesterone (yam source) | 57-83-0 | Not Listed | Present |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not Listed | Present |

| | | |
|--------------------------------------|---------------|--|
| Component | CAS No | CEPA Schedule I - Toxic Substances |
| Progesterone (yam source) | 57-83-0 | Not listed |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not listed |
| Component | CAS No | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Progesterone (yam source) | 57-83-0 | Not listed |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | Not listed |

EU Classification

EU GHS - SV - CLP 1272/2008

| | | |
|--------------------------------------|---------------|--------------------------------------|
| Component | CAS No | EU GHS - SV - CLP (1272/2008) |
| Progesterone (yam source) | 57-83-0 | |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | |

EU - CLP (1272/2008)

R-phrase(s)

R40 - Limited evidence of a carcinogenic effect
R63 - Possible risk of harm to the unborn child

S -phrase(s)

S36/37 - Wear suitable protective clothing and gloves

| Component | CAS No | Classification | Concentration Limits: | Safety Phrases |
|--------------------------------------|-----------|----------------|-----------------------|----------------|
| Progesterone (yam source) | 57-83-0 | | No information | |
| 1-Dodecane Sulfonic Acid Sodium Salt | 2386-53-0 | | No information | |

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

Indication of danger:

Xn - Harmful

Xn



16. OTHER INFORMATION

Preparation Date: 11/8/2019
Revision date Not applicable
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) 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 SDS. The physical properties reported in this SDS 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 SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet