

SAFETY DATA SHEETS

This SDS packet was issued with item:

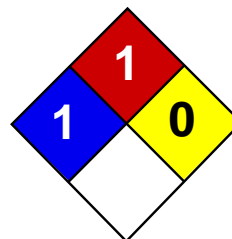
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The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078588506

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

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Health	1
Fire	1
Reactivity	0
Personal Protection	E

Material Safety Data Sheet

Estrone MSDS

Section 1: Chemical Product and Company Identification

Product Name: Estrone

Catalog Codes: SLE1048

CAS#: 53-16-7

RTECS: KG8575000

TSCA: TSCA 8(b) inventory: Estrone

CI#: Not available.

Synonym: Bestrone, Estro-A, Estronol, Kestron 5, Propagon-S, Theelin, Theogen, Destrone, Aquacrine, Crystogen, Oestrin, Oestrone,; 1,3,5(10)-Estratrien-3-ol-17-one; 1,3,5(10)-Oestratrien-3-ol-17-one; 1,3,5-Estratrien-3-ol-17-one; 1,3,5-Oestratrien-3-ol-17-one; 3-Hydroxy-1,3,5(10)-oestratrien-17-one; 3-Hydroxy-17-keto-estra-1,3,5-triene; 3-Hydroxy-17-keto-oestra-1,3,5-triene; 3-Hydroxy-oestra-1,3,5(10)-trien-17-one

Chemical Name: 3-Hydroxyestra-1,3,5(10)-triene-17-one

Chemical Formula: C₁₈H₂₂O₂

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Estrone	53-16-7	100

Toxicological Data on Ingredients: Estrone LD50: Not available. LC50: Not available.

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: Classified 2A (Probable for human.) by IARC, 2 (Some evidence.) by NTP. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Classified POSSIBLE for human. **DEVELOPMENTAL TOXICITY:** Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN]. The substance is toxic to the reproductive system. Repeated or prolonged exposure to the substance can produce target organs damage.

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).

Fire Hazards in Presence of Various Substances:

Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks.

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: When heated to decomposition it emits acrid smoke and fumes.

Special Remarks on Explosion Hazards:

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

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 locked up.. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Sensitive to light. Store in light-resistant containers.

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.)

Odor: Odorless.

Taste: Not available.

Molecular Weight: 270.37 g/mole

Color: White. Off-white.

pH (1% soln/water): Not applicable.

Boiling Point: Not available.

Melting Point: 255°C (491°F)

Critical Temperature: Not available.

Specific Gravity: 1.23 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, diethyl ether.

Solubility:

Partially soluble in diethyl ether. Insoluble in cold water, hot water. Soluble in vegetable oils, hot acetone, secondary pyrimidine, fixed alkali hydroxide solutions. Slightly soluble in benzene, hot chloroform, hot alcohol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, dust generation, light, incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity: Sensitive to light.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

CARCINOGENIC EFFECTS: Classified 2A (Probable for human.) by IARC, 2 (Some evidence.) by NTP. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN]. Causes damage to the following organs: the reproductive system.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects and birth defects (teratogenic). May cause cancer. Estrogens have been reported to increase the risk of endometrial, uterine, and breast cancer. May affect genetic material (mutagenic).

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: Avoid inhalation. May cause respiratory tract irritation and system effects. Ingestion: A single overdose of Estrone is unlikely to cause toxic effects. It may cause gastrointestinal tract irritation with abdominal cramps, nausea and vomiting. This material is readily absorbed from the gastrointestinal tract. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may have the following adverse effects: skin reactions (Chloasma, or melasma, erythema multiforme, erythema nodosum, hemorrhagic eruption, loss of scalp hair), increase in blood pressure, bloating, jaundice (yellow eyes or skin), Central Nervous System effects (headache, migraine, dizziness, mental depression), steepening of corneal curvature, weight gain or loss, increase of gallbladder disease, reduced carbohydrate tolerance, change in sex drive, loss of appetite, intolerance to contact lenses, swelling due to fluid and salt retention, aggravation of porphyria. Women may develop full or tender breasts and disturbed menstrual cycle (breakthrough spotting, change in menstrual flow), increase in size of uterine fibromyomata., change in cervical erosion and amount of cervical secretion. Men may experience breast enlargement and other feminizing effects. These changes in secondary sexual characteristics are fully reversible upon cessation of exposure. Hypersensitivity (anaphylactic) reactions may also occur. Medical conditions aggravated by exposure: Hypersensitivity to material, known or suspected breast cancer, known or suspected estrogen-dependent neoplasia, undiagnosed or abnormal genital bleeding, active thrombophlebitis and/or thromboembolic disorders. Pregnant women should not be exposed. There may be an association between intrauterine exposure to female sex hormones and congenital anomalies.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

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

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

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: Estrone 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: Estrone Illinois toxic substances disclosure to employee act: Estrone Pennsylvania RTK: Estrone Minnesota: Estrone Massachusetts RTK: Estrone New Jersey: Estrone California Director's list of Hazardous Substances.: Estrone TSCA 8(b) inventory: Estrone

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

R45- May cause cancer. R60- May impair fertility. R63- Possible risk of harm to the unborn child. S2- Keep out of the reach of children. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special instructions before use.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:

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

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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Material Safety Data Sheet

I - Product Identification:*Product Name:***Estradiol Cypionate, USP***Empirical Formula:* $C_{26}H_{36}O_3$ *Chemical Name:*Estra-1,3,5(10)-triene-3,17-diol, (17 β)-, 17-cyclopentanepropanoate*Uses:*

Estrogen

Code: 1901*CAS#:* 313-06-4**II - Toxicological Information:***Irritancy:*

May cause irritation to eyes, skin, respiratory tract and gastrointestinal tract.

Adverse Effects:

Slightly hazardous in case of ingestion, of inhalation. Ingestion may cause nausea, vomiting, and abdominal cramps. May also cause bloating, gallbladder obstruction, headache, dizziness, rapid weight gain, change in sex drive, loss of appetite, intolerance to contact lenses, swelling due to fluid and salt retention. Women may develop tender breasts and disturbed menstrual cycle. Men may experience breast enlargement and other feminizing effects. May also affect the liver causing jaundice which is manifested by yellow skin or eyes. Possible carcinogen and teratogen.

*Toxicological Data:*Intraperitoneal: Mouse: LD50: >1000 mg/kg**III - Physical Data:***Physical State:*Liquid ___ Solid X Gas ___*Description:*

White to practically white, crystalline powder. Is odorless or has a slight odor.

Solubility:

Insoluble in water; soluble in alcohol, in acetone, in chloroform, and in dioxane; sparingly soluble in vegetable oils.

Other Physical Properties:

mw: 396.57

IV - Fire And Explosion Hazards:*Flammability:*

May be combustible at high temperature.

Flash Point:

N/A

Extinguishing Media:

Water spray, dry chemical powder, or appropriate foam.

Fire-Fighting:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

V - Reactivity Data:*Stability:*

Stable.

Incompatibility:

Oxidizing agents, air and light.

Hazardous Decomp. Products:

Toxic fumes of carbon monoxide and carbon dioxide.

Hazardous Polymerization:

Will not polymerize.

VI - Preventive Measures:*Preventive Measures:*

Do not inhale dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

Personal Protective Equipment:

Chemical resistant gloves, goggles, respirator approved by the NIOSH/MSHA and other protective clothing.

Specific Engineering Controls:

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

Spills & Leaks:

Shut off all sources of ignition. Evacuate the area. Wear respirator, chemical safety goggles rubber boots and heavy rubber gloves. Avoid raising dust. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

Waste Disposal:

Dispose of in accordance with federal / local laws and regulations.

Storage:

Preserve in tight, light-resistant containers.

Shipping:

N/A

VII - First Aid Measures:*Eyes:*

Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

Skin:

Wash with soap and water for 15 minutes. If irritation persists seek medical aid.

Ingestion:

Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

NOTE: If victim is unconscious, never induce vomiting nor give liquids. Place victim in a stable side position and keep warm.*Ecological Data:*

N/A

Hazardous Ingredients:

N/A



References:

Available on request

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME	ESTRADIOL CYPIONATE, USP
PRODUCT CODE	1901
SUPPLIER	<p>MEDISCA Inc. Tel.: 1.800.932.1039 Fax.: 1.855.850.5855 661 Route 3, Unit C, Plattsburgh, NY, 12901 3955 W. Mesa Vista Ave., Unit A-10, Las Vegas, NV, 89118 6641 N. Belt Line Road, Suite 130, Irving, TX, 75063</p> <p>MEDISCA Pharmaceutique Inc. Tel.: 1.800.665.6334 Fax.: 514.338.1693 4509 Rue Dobrin, St. Laurent, QC, H4R 2L8 21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2</p> <p>MEDISCA Australia PTY LTD Tel.: 1.300.786.392 Fax.: 61.2.9700.9047 Unit 7, Heritage Business Park 5-9 Ricketty Street, Mascot, NSW 2020</p>
EMERGENCY PHONE	CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 NSW Poisons Information Centre: 131 126
USES	Hormone therapy

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION	<p>Toxic to Reproduction (Category 1B) Carcinogenicity (Category 1A) Chronic Aquatic Toxicity (Category 3)</p>
PICTOGRAM	 
SIGNAL WORD	Danger
HAZARD STATEMENT(S)	<p>Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. May damage fertility or the unborn child. May cause cancer. Harmful to aquatic life with long lasting effects.</p>
AUSTRALIA-ONLY HAZARDS	Not Applicable.
PRECAUTIONARY STATEMENT(S)	<p>Prevention</p> <p>Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. 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. Avoid release to the environment.</p>

Response IF SWALLOWED: Immediately call a poison center or medical professional; Rinse mouth.
IF ON SKIN: Wash with plenty of water; Immediately call a poison center or medical professional; Take off immediately all contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician.
IF EXPOSED OR CONCERNED: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents and/or container in accordance with local regulations.

HMIS CLASSIFICATION

Health Hazard	2	Flammability	0
Reactivity	0	Personal Protection	G

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME Estra-1,3,5(10)-triene-3,17-diol, (17beta)-, 17-cyclopentanepropanoate

BOTANICAL NAME Not applicable

SYNONYM 17-beta-Estradiol 17-cyclopentylpropionate

CHEMICAL FORMULA C₂₆H₃₆O₃

CAS NUMBER 313-06-4

ALTERNATE CAS NUMBER Not applicable

MOLECULAR WEIGHT 396.567

COMPOSITION

CHEMICAL NAME	CAS NUMBER	% BY WEIGHT
ESTRADIOL CYPIONATE	313-06-4	100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

NOTES

Chemical family: Steroid

SECTION 4: FIRST-AID MEASURES

IN CASE OF EYE CONTACT Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

IN CASE OF SKIN CONTACT Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

IF SWALLOWED Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

IF INHALED Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician

SYMPTOMS AND EFFECTS Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 5: FIREFIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL Not applicable

FLAMMABLE PROPERTIES May be combustible at high temperature

HAZARDOUS COMBUSTION PRODUCTS Under fire conditions, hazardous fumes will be present.

EXTINGUISHING MEDIA

Small fire: dry chemical, CO₂ or water spray. **Large fire:** dry chemical, CO₂, alcohol resistant foam or water spray. Do not get water inside containers.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

METHODS & MATERIAL FOR CONTAINMENT

On land, sweep or shovel into suitable containers. Minimize generation of dust.

CLEANUP PROCEDURE

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

STORAGE CONDITIONS

Store in original container, tightly sealed container, protected from direct sunlight, in a dry, and well-ventilated area, away from incompatible materials. Store in accordance with local regulations. Eliminate all ignition sources. Separate from oxidizing materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Preserve in tight, light-resistant containers.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name: ESTRADIOL CYPIONATE CAS #: 313-06-4

	TWA	Ceiling	STEL	REL	IDLH	Remarks
OSHA PEL	N/L	N/L	-	-	-	-
ACGIH TLV	N/L	N/L	N/L	-	-	-
NIOSH	N/L	N/L	N/L	N/L	N/L	-
AIHA WEEL	N/L	N/L	N/L	-	-	-
Safe Work Australia HSIS	N/L	N/L	N/L	-	-	-
HSE	N/L	N/L	N/L	-	-	-

N/L = Not Listed

EXPOSURE GUIDELINES

Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m³

PERSONAL PROTECTIVE EQUIPMENT

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SPECIFIC ENGINEERING CONTROLS

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

NOTES

USP: ELV: Industrial: TWA: 0.2 micrograms/m³

Exposure Limits: Industry: 0.05micrograms/m³; 0.15 micrograms/m³ STEL; 0.2micrograms/m³ skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Solid				
DESCRIPTION	White to practically white crystalline powder. Is odorless or has a slight odor.				
SOLUBILITY	Insoluble in water. Soluble in alcohol, acetone, chloroform, and in dioxane; sparingly soluble in vegetable oils.				
ODOR	Odorless or has a slight odor				
FLAMMABILITY	May be combustible at high temperature				
ODOR THRESHOLD	Not available	pH	Not available	MELTING POINT	(149 - 153)°C, (300.2-307.4)°F
BOILING POINT	Not available	FREEZING POINT	(149 - 153)°C, (300.2-307.4)°F	FLASH POINT	Not available
SPECIFIC GRAVITY	Not available	EVAPORATION RATE	Not available	EXPLOSIVE LIMIT	Not available
UPPER FLAMMABLE/ EXPLOSIVE LIMIT(S)	Not available	LOWER FLAMMABLE/ EXPLOSIVE LIMIT(S)	Not available	VAPOR PRESSURE	< 0.0000001 kPa (25°C)
VAPOR DENSITY (AIR = 1)	Not available	RELATIVE DENSITY (WATER = 1)	Not available	log P (OCTANOL-WATER)	Not available
AUTO-IGNITION TEMPERATURE	Not available	DECOMPOSITION TEMPERATURE	Not available	VISCOSITY	Not available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Not established
STABILITY	Stable under recommended storage conditions
MATERIALS TO AVOID	Strong oxidants
HAZARDOUS DECOMPOSITION PRODUCTS	Toxic fumes of carbon monoxide, carbon dioxide and other gases may occur
HAZARDOUS POLYMERIZATION	Will not occur
POSSIBILITY OF HAZARDOUS REACTION	Not established
CONDITIONS TO AVOID	Moisture, sunlight and extreme temperatures. Sensitive to light

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral: Rat: LD50: (mg/kg): Not available
Dermal: Rabbit LD50: (mg/kg): Not available
Inhalation: Rat: LD50: (mg/L/4hr): Not available

SKIN CORROSION/IRRITATION

Due to lack of data the classification is not possible.

SERIOUS EYE DAMAGE/EYE IRRITATION

Due to lack of data the classification is not possible.

RESPIRATORY OR SKIN SENSITIZATION

Respiratory sensitization: Due to lack of data the classification is not possible.
Skin sensitization: Due to lack of data the classification is not possible.

GERM CELL MUTAGENICITY

Based on available data, the classification criteria are not met.

CARCINOGENICITY

OSHA ESTRADIOL CYPIONATE is listed.
NTP ESTRADIOL CYPIONATE is listed.
IARC ESTRADIOL CYPIONATE is listed in group 1 (carcinogenic to humans).
California Proposition 65 This product contains the following chemical known to the State of California to cause cancer: ESTRADIOL CYPIONATE.

ADDITIONAL CARCINOGENICITY INFORMATION

In humans, long-term use of estrogens is associated with an increased risk of cancer of the endometrium, breast (male and female), and ovary. In animal studies, long-term administration of estrogens increased the incidence of cancer of the breast, cervix, vagina, uterus, testis, pancreas, and liver.

REPRODUCTIVE TOXICITY

May damage fertility or the unborn child. Studies suggest an association of congenital malformations with use of some estrogens during pregnancy.

0.003 mg/kg/day Reproductive and fertility LOAEL
Result: Reproductive toxicity
Species: Rat
30 mg/kg/day Embryo/fetal development LOAEL
Result: Fetotoxicity
Species: Rat

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Due to lack of data the classification is not possible.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Due to lack of data the classification is not possible.

ASPIRATION HAZARDS

Due to lack of data the classification is not possible.

SIGNS AND SYMPTOMS OF EXPOSURE

Symptoms related to the physical, chemical, and toxicological characteristics
For estrogens: In females and males: Nausea. Vomiting. Abdominal pain. Diarrhea. Headache. Dizziness. Drowsiness. Vision problems. Breast pain. Vaginal bleeding. Menstrual changes. Change in sex drive. Gallstones. Blood clots. Joint pain. Mood disturbances. In females: Full or tender breasts. In males: Breast enlargement.

Delayed and immediate effects of exposure
For estrogens: In females and males: Fluid retention. Jaundice. Stroke. Deep vein thrombosis. In females: Disturbed menstrual cycle. In males: Feminizing effects.

Medical conditions aggravated by exposure
For estrogens: Abnormal genital bleeding. Breast cancer. Estrogen-dependent tumors. Endometriosis. Blood clots. Liver impairment. Kidney impairment. Porphyrria. Asthma. Epilepsy. Migraine. Cardiovascular disease. Cerebrovascular disease. Hypoglycemia. Diabetes. Hypocalcemia. Systemic lupus erythematosus. High blood pressure.

Acute toxicity
Possible eye, skin, gastrointestinal, and/or respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

Inhalation Harmful if inhaled. May cause respiratory tract irritation.
Ingestion Harmful if swallowed. May cause irritation to the gastrointestinal tract.
Skin Harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY	EC50: 48 Hr: Crustacea: (mg/L): Not available LC50: 96 Hr: Fish: (mg/L): Not available IC50: 72 Hr: Algae: (mg/L): Not available
PERSISTENCE AND DEGRADABILITY	Suspected persistent in the environment: Ready biodegradability model (IRFMN) in VEGA (Q)SAR platform predicts that the chemical is NON Readily Biodegradable (moderate reliability); The Danish QSAR database contains information indicating that the substance is predicted as non readily biodegradable.
BIOACCUMULATIVE POTENTIAL	Not available
MOBILITY IN SOIL	Insoluble in water.
OTHER ADVERSE EFFECTS	Suspected hazardous to the aquatic environment: Fish toxicity classification (SarPy/IRFMN) model in VEGA (Q)SAR platform predicts that the chemical is Toxic-2 (between 1 and 10 mg/l) (moderate reliability) This product is not intended to be released into the environment

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.
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SECTION 14: TRANSPORT INFORMATION

UNITED STATES & CANADA

UN PROPER SHIPPING NAME	Not dangerous good
UN NUMBER	Not applicable
CLASS	Not applicable
PACKING GROUP	Not applicable

AUSTRALIA

UN PROPER SHIPPING NAME	Not dangerous good
UN NUMBER	Not applicable
CLASS	Not applicable
PACKING GROUP	Not applicable
HAZCHEM	Not Applicable

ENVIRONMENTAL HAZARDS	Not available
SPECIAL SHIPPING INFORMATION	Not applicable

SECTION 15: REGULATORY INFORMATION

Chemical Name & CAS	CERCLA 40 CFR Part 302.4	SARA (Title III) 40 CFR Part 372.65	EPA 40 CFR Part 355 Appendix A	EPA 40 CFR Part 355 Appendix B	Pennsylvania	Right-to-know New Jersey	Massachusetts	California Prop 65
ESTRADIOL CYPIONATE 313-06-4	N/L	N/L	N/L	N/L	N/L	N/L	N/L	X

N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

Chemical Name & CAS	Poisons and Therapeutic Goods Regulation	Therapeutic Goods Act	Code of Practices - Illicit Drug Precursors
ESTRADIOL CYPIONATE 313-06-4	N/L	Listed as Schedule 4	N/L

SECTION 16: OTHER INFORMATION

REFERENCES

Available upon request

ABBREVIATIONS AND ACRONYMS

CAS – Chemical Abstract Service; **GHS** – Global Harmonized System; **OSHA PEL** – Occupational Safety & Health Administration Permissible Exposure Limits; **TWA** – Time Weighted Average; **HSIS** – Hazardous Substances Information System; **STEL** – Short Term Exposure Limit; **AIHA WEEL** – American Industrial Hygiene Association Workplace Environment Exposure Levels; **LD50** – Lethal Dose, 50%; **IARC** – International Agency for Research on Cancer; **NTP** – National Toxicology Program; **WHMIS** – Workplace Hazardous Materials Information System; **SARA** – Superfund Amendments and Reauthorization Act; **EPA** – Environmental Protection Agency; **CERCLA** – Comprehensive Environmental Response, Compensation, and Liability Act; **HMIS** – Hazardous Materials Information System; **NIOSH** – National Institute for Occupational Safety and Health; **MSHA** – Mine Safety and Health Administration; **ACGIH** – American Conference of Governmental Industrial Hygienists; **IDHL** – Immediately Dangerous to Health or Life; **TLV** – Threshold Limit Value; **HSE** – Health and Safety Executive; **REL** – Recommended Exposure Limit

LAST REVISION

02/2017

SUPERSEDES

07/2014

DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.