

estroPLAN Safety Data Sheet Revision 4, Date 26 September 2018

1. IDENTIFICATION OF PRODUCT AND COMPANY

MANUFACTURER COMPANY DETAILS: DISTRIBUTOR DETAILS:

Parnell Technologies Pty. Ltd. Parnell U.S. 1, Inc

Address Address

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Trade names: estroPLAN injection

Product name : Cloprostenol sodium injection

Description: Clear, colorless solution with a mild amine odor.

Recommended use: FOR ANIMAL TREATMENT ONLY. An analogue of prostaglandin $F_{2\alpha}$ for

intramuscular injection in beef and dairy cattle.

2. COMPOSITION

Proportion Chemical Entity CAS Number Citric Acid/Sodium Citrate (Buffering Agents) 77-92-9/6132-04-3 <1% w/v Cloprostenol (as sodium)* 55028-72-3 0.025% w/v Chlorocresol 59-50-7 0.1% w/v Sodium Chloride 7647-14-5 <1% w/v Water 7732-18-5 to 100%

Note: Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

3. HAZARDS IDENTIFICATION

Signal word: CAUTION!

Statements of hazard: MAY CAUSE HARM TO THE UNBORN CHILD

Eye effects: None known; however, direct contact with any foreign material may cause eye

irritation.

Skin effects: May be absorbed through the skin and cause systemic effects. Mild diarrhea has

been reported following absorption of cloprostenol through skin.

Inhalation effects: May be absorbed through mucous membranes and cause systemic effects. See

'Statements of hazard' and/or 'Other potential health effects' in this section.

^{*}Hazardous





Ingestion effects: Ingestion should be avoided. See 'Statements of hazard' and 'Other potential health

effects' in this section.

Other potential health effects: Women of child bearing age, asthmatics or other people with bronchial disease

should use extreme caution when handling this product as cloprostenol has the

potential to induce abortion or acute bronchostriction.

NOTE: This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may

vary depending upon the potential for exposure in your workplace.

4. FIRST AID MEASURES

Wash off any Estroplan contacting skin immediately using soap and water. Seek medical assistance if required.

Swallowed: Seek medical assistance if required.

Eye: If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek medical assistance if required.

Skin: If skin contact occurs remove contaminated clothing and wash skin thoroughly with soap and water. Seek medical

assistance if required.

Inhaled: Seek medical assistance if required.

First Aid Facilities: No specific first aid facilities required.

ADVICE TO DOCTOR: Treat symptomatically as required.

5. FIRE-FIGHTING MEASURES

This material is not considered a fire hazard. Use standard fire fighting techniques to extinguish fires involving this material. Use water spray, dry chemical, carbon dioxide or foam.

6. ACCIDENTAL RELEASE MEASURES

Clear immediate area of unprotected personnel. Clean up spilled material with absorbent ensuring no contact with skin during operation. Flush contaminated area with water and detergent.

Dispose of waste in accordance with local, state or federal laws.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing.

Storage: Store below 25°C (77°F) (Air conditioning). Protect from light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards: No exposure standard allocated

Engineering Controls: Not applicable

Personal Protection:

Wear gloves when handling product.

Avoid spraying or splashing of the preparation.

Avoid inhalation of aerosol spray or vapour of the preparation.

Avoid eating, drinking or smoking in area of product or during handling of product.

Avoid contamination of work area.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour

Clear, colourless solution free from particulate matter with a mild amine odor.

Boiling Point Melting Point Not determined Not determined **Vapour Pressure Specific Gravity** Not determined 1.00 - 1.05

Flash Point Flammability Limits Not determined Not determined **Other Properties** Solubility in Water Aqueous solution Not applicable

10. STABILITY AND REACTIVITY

Stable under normal conditions of use. Reactivity

Conditions to avoid Protect from light Incompatibilities None known Hazardous decomposition None known

products

Hazardous polymerization Will not occur

11. TOXICOLOGICAL INFORMATION

Toxicology summary The information included in this section describes the potential hazards of the

active ingredient.

Acute toxicity

Compound	Туре	Rout	Specie	Result
Cloprostenol sodium	LD5	IV	Rat	>5 mg/kg
Cloprostenol sodium	LD5	SC	Rat	>5 mg/kg
Cloprostenol sodium	LD5	Oral	Rat	>310 mg/kg

Eye No data available Skin No data available Inhalation No data available Ingestion See Acute toxicity table

Mutagenicity R-cloprostenol, an enantiomer of cloprostenol, is not genotoxic.

Subchronic effects Three month oral toxicity studies were performed in rats and marmosets. In rats,

> ovarian vascuolization was seen at doses of 0.150 mg/kg/day. The same dose induced myocardial changes and a statistical increase in testicular weights in

marmosets.

Chronic effects/ carcinogenicity

No data available Carcinogen status

None of the components of this formulation are listed as a carcinogen by IARC,

NTP or OSHA.

In a three generation study carried out in rats, doses of up to 0.040 mg/kg did Reproductive effects

> not induce effects on reproductive performance. The only effects seen were slight reduction in neonatal viability attributable to the prematurity of the offspring.



In a series of reproductive studies, it was shown that the sensitivity of the rat to termination of pregnancy resulting from luteolysis varies according to the point in pregnancy when the compound is administered. The dose of 0.025 mg/kg did not terminate pregnancy.

In vitro studies using human luteal tissues have determined that cloprostenol may not be luteolytic in humans.

No teratogenic effects were seen in rats following oral administration or in rabbits

following subcutaneous administration of cloprostenol.

At increased risk from exposure

Additional information

Women of child bearing age, asthmatics or other people with bronchial disease Cloprostenol has the potential to induce abortion or acute bronchostriction.

12. ECOLOGICAL INFORMATION

Environmental overview

Teratogenicity

The environmental characteristics of this material have not been fully evaluated.

Releases to the environment should be avoided.

13. DISPOSAL CONSIDERATIONS

Disposal procedure

Incineration is the recommended method of disposal for this material. Observe all local and national regulations when disposing of this material.

14. TRANSPORT INFORMATION

General shipping instructions

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

EU Classification EU Labelling

GHS Label Pictogram(s)

Toxic to Reproduction: Category 2



Risk phrases R61 - May cause harm to the unborn child.

Safety phrases S22 - Do not breathe dust.

S36/37 - Wear suitable protective clothing and gloves.

S53 - Avoid exposure - obtain special instructions before use.

Canadian WHMIS Class D, Division 2, Subdivision A

16. OTHER INFORMATION

Issue date: 26 September 2018 Replaces MSDS dated: 11 May, 2016 Replaces MSDS dated: 11 February 2013 Replaces MSDS dated: 19 January, 2009