

MATERIAL SAFETY DATA SHEET

Product Name: COMPONENT E-S/E-C Cattle Implants

Supplier of Data: Ivy Animal Health, Inc.
8857 Bond Street
Overland Park, KS 66214

Emergency Telephone Number: 1-888-462-3493

Revision Date: 07/31/2003

Warning Statement:

Warning: Chronic overexposure may cause reproductive system disorders. Avoid ingestion, inhalation, skin contact, and eye contact. Material intended for veterinary use only.

Material Identification:

Common Name: Progesterone with estradiol benzoate cattle implants
Chemical Name: pregn-4-ene-3, 20-dione with estra-1, 3, 5 (10)-triene, 3, 17 beta-diol, 3-benzoate
Synonyms: COMPONENT E-S, COMPONENT E-C Cattle Implants

| <u>ACTIVE INGREDIENTS</u> | <u>FORMULA</u> | <u>PERCENT</u> |
|-------------------------------------|-------------------|----------------|
| Progesterone CAS # 57-83-0 | $C_{21}H_{30}O_2$ | 74.1 |
| Estradiol benzoate CAS # 50-50-0 | $C_{25}H_{28}O_3$ | 7.4 |

Health Hazard:

COMPONENT E-S/E-C is packaged within a plastic cartridge belt and poses no exposure risk unless the belt is damaged.

Eye: Not expected to produce eye irritation. Absorption through the eyes may cause systemic effects.

Skin: Not expected to cause skin irritation. Absorption through the skin may cause systemic effects.

Systemic: In men, overexposure may lead to gynecomastia (breast tenderness, breast nodules or enlarged breasts), galactorrhea (secretion of milk), decreased libido and damage to the testes resulting in atrophy and infertility.

In women, overexposure may cause menstrual irregularities (breakthrough bleeding, change in menstrual flow, spotting, amenorrhea), temporary infertility, breast changes (tenderness, enlargement, and secretion), and fluid retention.

The IARC has determined that there is sufficient evidence that progesterone and estradiol benzoate are carcinogenic in experimental animals. However, data are inadequate to evaluate the carcinogenicity in humans. When COMPONENT ES/ E-C is handled according to directions there is no exposure to the active ingredients.

Permissible Exposure Limit:

Progesterone: None currently established.

Estradiol benzoate: None currently established.

First Aid:

Eye Contact: Flush eyes thoroughly with water for at least 15 minutes. Contact physician.

Skin Contact: If skin appears irritated wash thoroughly with soap and water. Contact physician.

Inhalation: Not Applicable

Ingestion: Give moderate amounts of water. Contact physician.

Special Protection:

Eye Protection: The choice of protection should be appropriate for the activity being conducted.

Skin Protection: Where the potential exists for extended skin contact with tablets, latex gloves are recommended.

Reactivity:

Stability: Stable; Store according to label.

Incompatibility: Strong oxidizing agents (e.g. peroxides, permanganates, nitric acid, etc.) may produce violent reaction.

Hazardous Decomposition Products: Like any organic chemical, under certain conditions of combustion, COMPONENT E-S/E-C may produce nitrogen oxides, carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

Environmental Protection:

Waste Disposal Methods: All COMPONENT E-S/E-C waste should be contained in a plastic bag and disposed of according to prescribed federal, state, and local guidelines.

Physical Properties:

Boiling Point: Not applicable

Melting Point: The melting point of the finished dose form is unknown. The melting point for progesterone is 121-131 degrees C and for estradiol benzoate is 191-196 degrees C.

Molecular Weight: Not applicable.

Solubility: Soluble in alcohol or acetone.

Vapor Pressure: Nil

Specific Gravity: Unknown

Percent Volatile: Nil

Vapor Density: Unknown

Evaporation: Nil

Appearance, Color, Odor: Yellow pellets.

The above information is based on data available to us and is believed to be correct. However, NO WARRANTY is expressed or to be implied regarding the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of material. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the persons receiving it shall make their own determinations of the effects, properties and protections which pertain to their particular conditions.

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