MATERIAL SAFETY DATA SHEET

Product Name: COMPUDOSE/ENCORE 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: 09/10/2003

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: Estradiol/Silicone Implants

Chemical Name: 17 beta-estra 1, 3, 5 (10)- triene, 3, 17 beta-diol

Synonyms: COMPUDOSE 100, COMPUDOSE 200, COMPUDOSE 400, ENCORE

ACTIVE INGREDIENTS	FORMULA	PERCENT
Estradiol CAS # 50-28-2	$C_{18}H_{24}O_2$	4 – 8
Oxytetracycline Hydrochloride CAS # 2058-46-0	$C_{22}H_{24}N_2O_9$	0 – 0.25
Sodium Bicarbonate CAS # 144-55-8	NaH_2CO_3	0 – 0.25

Implants are dusted with either Oxytetracycline HCl or Sodium Bicarbonate.

Health Hazard:

COMPUDOSE/ENCORE is packaged within a plastic 20-dose round cartridge or within a plastic 10-dose flat cassette and poses no exposure risk unless the container 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 to estradiol 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 to estradiol 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 estradiol is carcinogenic in experimental animals. However, data are inadequate to evaluate the carcinogenicity in humans. When COMPUDOSE/ENCORE is handled according to directions there is no exposure to the active ingredients.

Oxytetracycline Hydrochloride is present on the surface of certain implants in such small quantities that it is generally irrelevant to toxicological considerations. The possibility of a local sensitization reaction is discussed in the FIRST AID section.

Permissible Exposure Limit:

Estradiol: 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. In individuals allergic to or sensitive to Oxytetracycline, a skin or systemic reaction may develop if the packaging is broken and the implant is handled directly. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops. Remove contaminated clothing and clean before reuse.

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 implants, 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, COMPUDOSE/ENCORE may produce nitrogen oxides, carbon monoxide and carbon dioxide.

Extinguishing Media: Use water, carbon dioxide, dry chemical, foam or Halon.

Hazardous Polymerization: Will not occur.

Environmental Protection:

Waste Disposal Methods: All COMPUDOSE/ENCORE 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: Not Applicable

Water Solubility: Insoluble

Vapor Pressure: Not applicable

Specific Gravity: Not applicable

Percent Volatile: Nil

Vapor Density: Not applicable

Toxicology

Animal Toxicity Data - Single Exposure: Data for Compudose 400 (Encore) and estradiol are reported as indicated.

Oral: Estradiol – Rat, 500 mg/kg, no deaths or toxicity.

Skin: Compudose 400 – Rabbit, 5 implants taped to skin, no deaths or toxicity.
Estradiol – Rabbit, 100 mg/kg, no deaths or toxicity.

Inhalation: No applicable information found.

Eye: Estradiol – Rabbit, slight irritant.

Animal Toxicity Data - Repeat Exposure: No data for Compudose. Toxicity data for estradiol are reported as indicated.

Target Organ Effects: Estradiol – Hormonal effects (changes in hormone levels).

Reproduction: Estradiol – Reproduction tissue changes, decreased fertility, menstrual irregularities, fetal changes, developmental changes in offspring.

Sensitization: No applicable information found.

Mutagenicity: Estradiol – Mutagenic in mammalian cells. Not mutagenic in bacterial cells.

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