

wet syringe. As with all antibiotics, appropriate in vitro culturing and susceptibility testing of samples taken before treatment should be conducted. Do not administer in conjunction with penicillin. As with all antibiotics, excessive continuous use may result in an overgrowth of nonsusceptible organisms. Federal law restricts this drug to use by or on the order of a licensed veterinarian.

(d) *Cattle*.—(1) *Specifications*. Each milliliter of nonaqueous, buffered, alcohol base sterile solution contains 200 milligrams of erythromycin base.

(2) *Related tolerances*. See § 556.230 of this chapter.

(3) *Conditions of use*—(i) *Amount*. 4 milligrams of erythromycin base per pound of body weight once daily for up to 5 days.

(ii) *Indications for use*. For the treatment of bovine respiratory disease (shipping fever complex and bacterial pneumonia) associated with *Pasteurella multocida* susceptible to erythromycin.

(iii) *Limitations*. For intramuscular use only. Do not use in female dairy cattle over 20 months of age. Do not slaughter treated animals within 6 days of last treatment. To avoid excess trim, do not slaughter within 21 days of last injection.

[58 FR 43795, Aug. 18, 1993, as amended at 66 FR 14073, Mar. 9, 2001; 68 FR 4915, Jan. 31, 2003]

§ 522.840 Estradiol.

(a) *Specifications*. Each silicone rubber implant contains 25.7 or 43.9 milligrams of estradiol.

(b) *Sponsor*. See No. 021641 in § 510.600(c) of this chapter.

(c) *Conditions of use*. It is used for implantation in steers and heifers as follows:

(1) *Amount*. Insert one 25.7-milligram implant every 200 days; insert one 43.9-milligram implant every 400 days.

(2) *Indications for use*. For increased rate of weight gain in suckling and pastured growing steers; for improved feed efficiency and increased rate of weight gain in confined steers and heifers.

(3) *Limitations*. For subcutaneous ear implantation in steers and heifers only. A second implant may be used if desired. No additional effectiveness may

be expected from reimplanting in less than 200 days for the 25.7-milligram implant or 400 days for the 43.9 milligram implant. Increased sexual activity (bulling, riding, and excitability) has been reported in implanted animals.

[51 FR 22276, June 19, 1986, as amended at 57 FR 41861, Sept. 14, 1992; 66 FR 56035, Nov. 6, 2001]

§ 522.842 Estradiol benzoate and testosterone propionate in combination.

(a) [Reserved]

(b) *Sponsors*. See 000856 in § 510.600(c) of this chapter for use as in paragraph (d)(1)(i), (d)(2), and (d)(3) of this section. See 021641 in § 510.600(c) of this chapter for use as in paragraph (d) of this section.

(c) *Related tolerances*. See §§ 556.240 and 556.710 of this chapter.

(d) *Conditions of use—Heifers*. For implantation as follows:

(1) *Amount*. (i) 20 milligrams of estradiol benzoate and 200 milligrams of testosterone propionate per dose.

(ii) 20 milligrams estradiol benzoate and 200 milligrams testosterone propionate in eight pellets with 29 milligrams tylosin tartrate as a local antibacterial in one pellet, per implant dose.

(2) *Indications for use*. Growth promotion and improved feed efficiency.

(3) *Limitations*. For heifers weighing 400 pounds or more; for subcutaneous ear implantation, one dose per animal; not for use in dairy or beef replacement heifers.

[40 FR 13858, Mar. 27, 1975, as amended at 49 FR 29778, July 24, 1984; 61 FR 5506, Feb. 13, 1996; 64 FR 48294, Sept. 3, 1999]

§ 522.850 Estradiol valerate and norgestomet in combination.

(a) *Specifications*. The product is a two-component drug consisting of the following:

(1) An implant containing 6.0 milligrams of norgestomet.

(2) An injectable solution (sesame oil) containing 3.0 milligrams of norgestomet and 5.0 milligrams of estradiol valerate per 2 milliliters.

(b) *Sponsor*. See 050604 in § 510.600(c) of this chapter.

(c) *Conditions of use*—(1) *Amount*. One implant and 2 milliliters of injection at time of implantation.

(2) *Indications for use.* For synchronization of estrus/ovulation in cycling beef cattle and non-lactating dairy heifers.

(3) *Limitations.* Insert implant subcutaneously in the ear only; then immediately inject solution intramuscularly only. Counting the day of implantation as day 1, remove the implant on day 10. Collect all implants as they are removed and burn them. While animals are restrained for artificial insemination, avoid other treatments such as vaccinations, dipping, pour-on grub and louse prevention, spraying, etc. When inseminating without estrus detection, the entire treated group should be started at 48 hours after the last implant has been removed and should be completed within 6 hours. Where estrus detection is preferred, insemination should be approximately 12 hours after first detection of estrus. Those that do not conceive can be re-bred when they return to estrus approximately 17 to 25 days after implant removal. Do not use in cows producing milk for human consumption.

[47 FR 55477, Dec. 10, 1982, as amended at 48 FR 49656, Oct. 27, 1983; 51 FR 33592, Sept. 22, 1986; 54 FR 1165, Jan. 12, 1989]

§ 522.863 Ethylisobutrazine hydrochloride injection.

(a) *Specifications.* The drug is a sterile aqueous solution. Each milliliter contains 50 milligrams of ethylisobutrazine hydrochloride.

(b) *Sponsor.* See No. 000061 in § 510.600(c) of this chapter.

(c) *Conditions of use.* (1) It is used in dogs as a tranquilizer.¹

(2) It is administered intramuscularly at a dosage level of 2 to 5 milligrams of ethylisobutrazine hydrochloride per pound of body weight for profound tranquilization. It is administered intravenously at a dosage level of 1 to 2 milligrams of ethylisobutrazine hydrochloride per pound of body weight to effect.¹

¹These conditions are NAS/NRC reviewed and deemed effective. Applications for these uses need not include effectiveness data as specified by § 514.111 of this chapter, but may require bioequivalency and safety information.

(3) It is not to be used in conjunction with organophosphates and/or procaine hydrochloride because phenothiazines may potentiate the toxicity of organophosphates and the activity of procaine hydrochloride.¹

(4) Federal law restricts this drug to use by or on the order of a licensed veterinarian.¹

[40 FR 13858, Mar. 27, 1975, as amended at 46 FR 48642, Oct. 2, 1981; 61 FR 8873, Mar. 6, 1996; 62 FR 61625, Nov. 19, 1997]

§ 522.883 Etorphine hydrochloride injection.

(a) *Chemical name.* 6,7,8,14 - tetrahydro - alpha - methyl - alpha - propyl - 6,14 - endo-ethenooripavine-alpha-methanol hydrochloride.

(b) *Specifications.* Each milliliter of etorphine hydrochloride injection, veterinary, contains 1 mg of etorphine hydrochloride in sterile aqueous solution.

(c) *Sponsors.* See No. 053923 in § 510.600(c) of this chapter.

(d) *Conditions of use.* (1) The drug is used for the immobilization of wild and exotic animals.

(2) It is administered intramuscularly by hand syringe or syringe dart at a suitable dosage level depending upon the species.

(3) Do not use the drug unless diprenorphine hydrochloride injection, veterinary, as provided for in § 522.723, is available for use in reversing the effects of etorphine hydrochloride injection, veterinary.

(4) For use in wild or exotic animals only. Do not use in domestic food-producing animals. Do not use 30 days before, or during, the hunting season in free-ranging wild animals that might be used for food.

(5) Federal law restricts this drug to use by or on the order of a licensed veterinarian. Distribution is restricted to veterinarians engaged in zoo and exotic animal practice, wildlife management programs, and researchers.

[40 FR 13858, Mar. 27, 1975, as amended at 48 FR 16241, Apr. 15, 1983; 61 FR 260, Jan. 4, 1996]

§ 522.900 Euthanasia solution.

(a) [Reserved]

(b)(1) *Specifications.* Each milliliter of nonsterile solution contains 390 milligrams of pentobarbital sodium and 50 milligrams of phenytoin sodium.