

*Sedative, Anesthetic & Euthanizing Drugs*

DRUGS	TRADE NAME	ACTIVE INGREDIENT	INDICATIONS	DOSAGE/CONCENTRATION & ROUTES OF ADMIN.	TOXIC/LETHAL DOSE	WITHDRAWAL TIME	CONTRADICTIONS
Thiopental	Pentothal®	Thiopental Sodium	Ultra-short acting thiobarbiturate used for anesthesia induction or anesthesia for very short procedures	General anaesthetic induction (without pre-anaesthetic medication). Dogs, cats: by intravenous injection, 25–30 mg/kg (maximum 1.25 g) of 1.25% or 2.5% solution; see notes above General anaesthetic induction (with pre-anaesthetic medication). Horses: by intravenous injection, 5.5–10.0 mg/kg of 5% solution Dogs, cats: by intravenous injection, 8–12 mg/kg	The lethal dose of barbiturates varies and cannot be stated with certainty. Lethal blood levels may be as low as 1 mg/100 mL for short-acting barbiturates; less if other depressant drugs or alcohol are also present.	Meat – 4 days  Milk - None	Thiopental should be avoided or used with caution in the following patients. <ul style="list-style-type: none"><li>● Hypovolemic and septic patients</li><li>● Patients with cardiac disease, especially dysrhythmias</li><li>● Uremic patients</li><li>● Patients with liver disease</li><li>● Patients undergoing splenectomy and liver biopsy</li><li>● Sighthounds</li><li>● Emaciated patients</li></ul> Atropine sulfate (or glycopyrrolate) is often administered prior to thiobarbiturate anesthesia to prevent parasympathetic side effects; however, some clinicians question whether routine-administration of anticholinergic agents is necessary.
Euthanasia Fort Solution		Pentobarbital Sodium Phenytoin Sodium	For use in dogs for humane, painless, and rapid euthanasia.	Dogs: 1 mL for each 10 pounds of body weight. Intravenous injection is preferred. Intracardiac injection may be made when intravenous injection is impractical, as in a very small dog, or in a comatose dog with impaired vascular functions.	1 mL for each 10 pounds of body weight	-	For canine euthanasia only. Must not be used for therapeutic purposes. Do not use in animals intended for food

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Natrium Pentobarbital		Pentobarbital Sodium	Barbiturate used therapeutically as a sedative/anesthetic, & treating intractable seizures; also used for euthanasia	<b><i>Sedative:</i></b> Dogs & Cats 2–4 mg/kg IV <b><i>Anesthetic:</i></b> Dogs 30 mg/kg IV to effect Cats 25 mg/kg IV Cattle 30 mg/kg IV to effect Horse 15–18 mg/kg IV for light anesthesia Swine 15–30 mg/kg IV <b><i>Euthanasia:</i></b> Rapid intravenous (preferred), intraperitoneal, or intracardiac injection, 120–200 mg/kg as necessary	In dogs, the reported oral LD <sub>50</sub> is 85 mg/kg and IV LD <sub>50</sub> is 40–60 mg/kg.	Meat – 4 days  Milk – 4 hours	Known hypersensitivity, severe liver disease, nephritis, or severe respiratory depression (large doses). Caution: Hypovolemia, anemia, borderline hypo-adrenal function, or cardiac or respiratory disease. Use with caution in cats (sensitive to respiratory depression). Animals intended for human or animal consumption
Ketamin 10%	Ketaset®, Ketaflo®, Vetalar®	Ketamine hydrochloride	Dissociative general anesthetic; also inhibits NMDA-receptors so may be adjunctively useful to control pain	General anaesthesia (without pre-anaesthetic medication). Cats: by subcutaneous, intramuscular (preferred), or intravenous injection, 11–33 mg/kg Analgesia. Dogs: by intravenous infusion, 2–10 micrograms/kg per minute (lower dose used in conscious animals, higher dose used intra-operatively)	Ketamine is considered to have a wide therapeutic index. When given too rapidly or in excessive doses, significant respiratory depression may occur.	Meat – 3 days  Milk – 48 hours	Hypersensitivity to ketamine, hypertension, severe cardiac, hepatic or renal impairment, head trauma, seizure disorders, glaucoma or eye injuries. Sole anaesthetic in horses, or dogs; latter stages of pregnancy in animals
Bupivacaine	Marcaine®	Bupivacaine hydrochloride	Preferred drug for postoperative analgesia because of its relatively long duration of action (~3–8 hr)	2–3mg/kg for dogs [5mg/ml]	Toxicity 4.4 mg/kg	-	Obstetrical paracervical block anesthesia has resulted in fetal bradycardia and death. Hypersensitivity to it or to any local anesthetic agent of the amide-type or to other components of Bupivacaine Hydrochloride solutions.

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Bomazine 2%		Xylazine	Sedation, analgesia and muscle relaxation of large and small domestic and wild animals.	Dogs and Cats: Intravenous 0.12-0.25 ml / 5 kg Intramuscular 0.25-0.5 ml / 5 kg Horses: Intravenous 0.25-0.5 ml/ 10 kg Cattle: Intravenous 0.25-0.75 ml/ 100 kg  Intramuscular 0.5-1.75 ml/ 100 k		Meat – 5 days Milk – 72 hours	
Bomazine 10%		Xylazine	Sedation, analgesia and muscle relaxation of horses and cattle	<b>HORSE</b> Intravenous 0.5-1.0mg/kg Intramuscular 1.0-2.5mg/kg <b>CATTLE</b> Intravenous 0.05-0.15mg/kg Intrmuscular 0.1-0.35mg/kg		Meat – 3 days after last treatment Milk - nil	Not recommended in animals with cardiovascular disease, respiratory depression, shock and in late pregnancy. Avoid concomitant use with tranquilizers.