Ceva Animal Health
Export Catalogue

Together, beyond animal health

Ceva Animal Health Pty Ltd

PO Box 147
Glenorie NSW 2157
Australia

Phone: +61 2 9652 7000
Fax: +61 2 9652 7001

Email: info.australia@ceva.com
Web: www.ceva.com.au

Company profile of Ceva Animal Health Australia

Ceva Animal Health Pty Ltd is the Australian subsidiary of the Ceva Group.

We are based in Glenorie, New South Wales and employ over 80 staff, both in head office and as a sales force across Australia, we have four production units, with R&D and QC facilities on site. In July 2010, the Ceva Santé Animale group finalised the acquisition of Nature Vet, a long established Australian company.

Nature Vet had its origins in a successful equine veterinary practice which operated in Australia during the 1970's. In order to provide high quality specialised veterinary products for their equine patients, the practice enlisted the aid of an innovative chemist to form a manufacturing company.

In 1983 the Nature Vet company was formed and in 1990 they acquired Biochemical Veterinary Research Pty Ltd which expanded the product range and key academic research and development relationships.

The origins of Nature Vet in an equine veterinary practice reflected a close relationship between the company, the veterinarian and the equine patient.

What makes Ceva different?

Our Values, Vision and Mission are what sets us aside from other companies:

The key values; Innovation, Entrepreneurial Spirit and Solidarity are designed to maintain the agility of a small business within the organisational requirements of a large group. At Ceva we are focused to better serve our customers and challenge ourselves to find new ways of creating value and being independent whilst benefiting from the strengths of a large, global company.

Ceva's Vision: "Together, we are building a new reference to create value beyond animal health"

Ceva's Mission: "Together, beyond animal health;

- Helping feed a growing population through ensuring sufficient and secure food resources
- Promote the benefits of human/animal interaction in a rapidly urbanising society
- Prevent the expansion of zoonoses"

Export business for Ceva Animal Health Australia

We currently export a range of products to over 30 countries, these products are predominantly the Nature Vet equine range. Ceva's brands are in the hands of our strong marketing partners who we continue to build our export business with. The strong business relationships between Ceva and our distributors optimises the success of our growing export business.

The Prescription Choice of Equine Specialists

PENTOSAN GOLD® + H.A.
Injection for Horses and Camels

ceva

Product Index
Alphabetical Listing

PRODUCT NAME	PRESENTATION	PACK SIZE
ACP 10	Injection	100 mL Sterile Glass Multidose Vial
AMBROXOL	Injection	100 mL Sterile Glass Multidose Vial
AMINO MAX	Injection	500 mL Sterile Plastic Multidose Bottle
AMMO ALLWORMER	Paste	32.5 g Syringe
AMP-5	Injection	20 mL Sterile Glass Multidose Vial
	Paste	250 g Paste Pot
COPHOS B	Injection	100 mL Sterile Glass Multidose Vial
	Paste	250 g Paste Bag
COSEQUIN EQUINE POWDER	Powder	700 g Tub
CREATINE	Paste	250 g Paste Pot
CU-ALGESIC	Paste	30 g Multidose Syringe
DADA 250	Injection	50 mL Sterile Glass Multidose Vial
DETOMO VET	Injection	10 mL Sterile Glass Multidose Vial
DIUREX	Injection	50 mL Sterile Glass Multidose Vial
DMG	Injection	100 mL Sterile Glass Multidose Vial
ELECTROVITE	Paste	12x 60 g Multidose Syringe
ENERGETCIC ISOTONIC	Powder	250 g Resealable Foil Satchet
EQUI-IRON	Injection	20 mL Sterile Glass Multidose Vial
FERROCYL	Injection	100 mL Sterile Glass Multidose Vial
FOLIC ACID	Injection	100 mL Sterile Glass Multidose Vial
FOLIC ACID/VITAMIN B12	Injection	100 mL Sterile Glass Multidose Vial
GENTAMAX 100	Injection	100 mL Sterile Glass Multidose Vial
GLUCOSAMINE 200	Injection	100 mL Sterile Glass Multidose
GREEN AMINO	Powder	300 g Resealable Foil Satchet
HALO IV	Injection	6x 6 mL Sterile Glass Vial
HEPTAM	Injection	50 mL Sterile Glass Multidose Vial
HEPTENAL	Injection	100 mL Sterile Glass Multidose Vial
HI-VITE C	Paste	250 g Paste Pot
HI-VITE FOL B12	Paste	250 g Paste Pot
JOINT GUARD FOR HORSES	Powder	1.5 kg Bucket
		5 kg Bucket
JOINT GUARD PLUS	Powder	1.5 kg Bucket
JUROCYL	Injection	100 mL Sterile Glass Multidose Vial
L-CARNITINE	Injection	100 mL Sterile Glass Multidose Vial
	Paste	250 g Paste Bag

PRODUCT NAME	PRESENTATION	PACK SIZE
LACTANASE	Injection	100 mL Sterile Glass Multidose Vial
MANNERS	Powder	1.2 kg Bucket
MEPIVACAINE	Injection	100 mL Sterile Glass Multidose Vial
MITACHONDRAL	Injection	100 mL Sterile Glass Multidose Vial
MORAMECTIN ALLWORMER	Paste	32.5 g Syringe
NATROZOL	Powder	4 kg Bucket
		15 kg Bucket
NATROZOL FORTE	Powder	1.2 kg Bucket
NEMBAN	Paste	30 g Syringe
NITROTAIN	Paste	60 g Multidose Syringe
	Paste	250 g Paste Pot
	Paste	1 kg Bucket
OMEGA 3	Liquid	1 Litre Bottle
OMOGUARD	Paste	33g Multidose Syringe
		6x 33g Multidose Syringe
PENTOSAN EQUINE	Injection	6 mL Sterile Glass Vial
		50 mL Sterile Glass Multidose Vial
		100 mL Sterile Glass Multidose Vial
PENTOSAN GOLD	Injection	12 mL Sterile Glass Vial
		6x12 mL Sterile Glass Vial
PENTOSAN GOLD + HALO	Injection	6x 12 mL and 6x 6 mL Sterile Glass Vial
PENTOSAN GOLD & HA	Injection	6x 20 mL Sterile Glass Vial
PEPTOSYL	Liquid	5 Litre Bottle
PHYSINE	Injection	100 mL Sterile Glass Multidose Vial
PRE-FERRIN	Injection	50 mL Sterile Glass Multidose Vial
RACE ELECTROLYTE	Powder	16 kg Bucket
RAKELIN	Injection	20 mL Sterile Glass Multidose Vial
READYSERVE	Liquid	1 Litre Bottle
		2 Litre Bottle
	Injection	30 mL Sterile Glass Multidose Vial
RECOVERY	Paste	250 g Paste Bag
RETREAD	Powder	1.2 kg Bucket
SALBUTE	Injection	100 mL Sterile Glass Multidose Vial
SALSPRIN	Injection	100 mL Sterile Glass Multidose Vial
TAIPAN	Injection	100 mL Sterile Glass Multidose Vial

Product Index
Alphabetical Listing

PRODUCT NAME	PRESENTATION	PACK SIZE
THIAZINE 100	Injection	50 mL Sterile Glass Multidose Vial
TILDREN	Injection	10x10 mL Sterile Glass Vials
TRANQUIL	Paste	30 g Multidose Syringe
TRANSAM	Injection	100 mL Sterile Glass Multidose Vial
TRIDENOSEN	Injection	100 mL Sterile Glass Multidose Vial
TRIPART	Injection	100 mL Sterile Glass Multidose Vial
	Paste	250 g Paste Bag
TYROPOWER	Paste	30 g Multidose Syringe
UNTIE	Powder	4 kg Bucket
VAM	Injection	100 mL Sterile Glass Multidose Vial
	Paste	250 g Paste Bag
VITAMIN B COMPLEX	Injection	100 mL Sterile Glass Multidose Vial
VITAMIN B1	Injection	100 mL Sterile Glass Multidose Vial
VITAMIN B12	Injection	100 mL Sterile Glass Multidose Vial
VITAMIN C	Injection	100 mL Sterile Glass Multidose Vial

Prescription Animal Remedy

Shining a light on joint disease

NV HALO INJECTION contains:
10 mg/mL Sodium Hyaluronate

Halo® Injection

An aid in the treatment of non-infectious, inflammatory joint disease in horses by intravenous injection

Ceva Animal Health Pty Ltd PO Box 147, Glenorie NSW Australia 2157. Ph 02 9652 7000 Fax 02 9652 7001 www.ceva.com.au/info.australia@ceva.com

Product Index

Therapeutic Categories and Trouble Shooting Guide

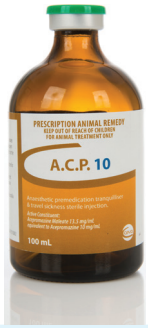
CATEGORY	PRODUCTS
Anabolic Agents	NITROTAIN
	CREATINE, NATROZOL, NATROZOL FORTE (non-hormonal conditioners)
Anaesthetic Premedicants	ACP 10, DETOMO VET, THIAZINE 100
Anthelmintic	AMMO ALLWORMER, NEMBAN, MORAMECTIN
Anti-arthritic / Chondroprotective Agents	COSEQUIN EQUINE, GLUCOSAMINE 200, HALO, JOINT GUARD, JOINT GUARD PLUS, PENTOSAN EQUINE, PENTOSAN GOLD, PENTOSAN GOLD + HALO, PENTOSAN GOLD & HA, TILDREN
Antibiotic	GENTAMAX 100
Anti-Inflammatory Agents	CU-ALGESIC, SALBUTE, SALSPRIN
Antioxidants	DMG, HI-VITE C, VITAMIN C, ENERGETIC ISOTONIC, GREEN AMINO
Appetite	FERROCYL, JUROCYL, NATROZOL, NITROTAIN, VAM
Bleeders	DIUREX, HI-VITE C
Blood Counts	EQUI-IRON, FERROCYL, PRE-FERRIN, VAM
Buffers	COPHOS B, GREEN AMINO, L-CARNITINE, PHYSINE
Calming Agents	MANNERS, RAKELIN, TRANQUIL
Concentration	TYROPOWER
Diarrhoea, Disgestive Upsets	OMOGUARD, PEPTOSYL
Electrolytes	AMINO MAX, ELECTROVITE, ENERGETIC ISOTONIC, RACE ELCTROLYTE, UNTIE
Endurance	AMINO MAX, AMP-5, COPHOS B, CREATINE, DMG, GREEN AMINO, L-CARNITINE, MITACHONDRAL
Energy Supplements	COPHOS B, CREATINE, DMG, ENERGETIC ISOTONIC, GREEN AMINO, HEPTAM, L-CARNITINE, TRIPART
Fatty Acid Supplements	OMEGA 3
Gastric Ulcers	OMOGUARD
Joint Health	COSEQUIN EQUINE, GLUCOSAMINE 200, HALO, JOINT GUARD, JOINT GUARD PLUS, OMEGA 3, PENTOSAN EQUINE, PENTOSAN GOLD, PENTOSAN GOLD + HALO, PENTOSAN GOLD & HA

CATEGORY	PRODUCTS
Liver Support	HEPTENAL
Local Anaesthetic Agent	MEPIVACAINE
Pain	CU-ALGESIC, SALBUTE, SALSPRIN
Performance Supplements / Supportives	AMP-5, COPHOS B, DMG, DIUREX, ELECTROVITE , ENERGETIC ISOTONIC, GREEN AMINO, HEPTAM, HEPTENAL, L-CARNITINE, MITACHONDRAL, PHYSINE, TAIPAN, TRANSAM, TRIPART, VAM
Post Race Recovery	COPHOS B, ELECTROVITE, ENERGETIC ISOTONIC, RACE ELECTROLYTE, RECOVERY, TAIPAN TRIPART, VAM, VITAMIN C
Reproduction	READYSERVE
Respiratory Agents	AMBROXOL
Sedatives	ACP 10, DETOMO VET, RAKELIN, THIAZINE 100
Skin & Coat, Hooves	JUROCYL, OMEGA 3, RETREAD
Tonics & Stimulants	FERROCYL, JUROCYL, TYROPOWER, VAM
Travelling	AMINO MAX, ELECTROVITE, ENERGETIC ISOTONIC, MANNERS, RACE ELECTROLYTE, TRANQUIL, TRIPART
Tying Up / Muscle Damage	AMP-5, COPHOS B, CREATINE, L-CARNITINE, LACTANASE, OMEGA 3, RECOVERY, TRIDENOSEN, TRIPART, UNTIE
Vasodilators	AMP-5, DADA 250, HEPTENAL, TRIDENOSEN
Vitamin, Amino Acid & Mineral	GREEN AMINO POWDER, HEPTAM, TRIPART, TYROPOWER, UNTIE, VAM
Vitamins	AMINO MAX, FOLIC ACID, FOLIC B12, HI-VITE C, HI-VITE FOLIC B12, VAM, VITAMIN B COMPLEX, VITAMIN B1, VITAMIN B12, VITAMIN C

ACP 10 INJECTION

ANAESTHETIC PREMEDICATION, TRANQUILLISER & TRAVEL SICKNESS

S4



Tranquilliser and Premedication for Anaesthesia for Horses

COMPOSITION

Acepromazine maleate 13.5 mg (= acepromazine 10 mg)/mL

ACTIONS

Acepromazine is a CNS depressant with associated activity on the autonomic system. ACP is an effective tranquilliser which produces calming and relaxation. ACP causes minimal muscle relaxation or ataxia, and minimal analgesia.

As a preanaesthetic agent, acepromazine can reduce the amount of barbiturate necessary for inducing anaesthesia by one-third. It potentiates both barbiturate and gaseous anaesthetics.

INDICATIONS

Anaesthetic premedication, tranquilliser and travel sickness suppressant.

Small doses will provide tranquillisation and handling of otherwise intractable animals. Loading and transportation, examination of the penis, feet and teeth, dystocias are all facilitated.

As an adjunct in the treatment of tetanus and spasmodic colic in horses. ACP can be combined with Thiazine 100 or Detomo Vet to reduce the dose of each and thus reduce adverse cardiopulmonary depression and ataxia. ACP can be used as part of the premedication to reduce the dose of anaesthetic required.

DOSAGE AND ADMINISTRATION

Can be used in horses, cattle, pigs and sheep. Give by intramuscular or slow intravenous injection.

0.25 to 0.5 mL/50 kg bodyweight.

Administer 1 - 3 minutes prior to the desired effect and await clinical signs of tranquillisation before travel or subsequent administration of anaesthetic. For tranquillisation adjust dosage to maintain desired effect for the duration of travel or procedure.

WARNINGS

Meat Witholding Period: DO NOT USE less than 2 days before slaughter for human consumption.

Milk collected from cows/ewes/does within 48 hours following treatment MUST NOT BE USED for human consumption or processing, or fed to bobby calves.

Acepromazine is a potent vasodilator and should be used with caution in situations of low blood pressure or poor cardiac output.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E15010B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 40076)

AMBROXOL INJECTION

MUCOLYTIC EXPECTORANT AGENT

S4

Mucolytic expectorant to clear and maintain airways

COMPOSITION

Contains:
Ambroxol hydrochloride 6 mg/mL

ACTIONS

AMBROXOL is a mucolytic expectorant. Ambroxol is an active metabolite of bromhexine, and acts to reduce the viscosity of tenacious mucus secretions by fragmentation of long mucopolysaccharide chains, resulting in a productive cough which aids expectoration of liquefied mucoid respiratory secretions, and assists in clearing and maintaining patent bronchioles and alveoli, hence reducing dyspnoea.
AMBROXOL enhances the concentrations of chemotherapeutic agents in bronchial secretions to result in a more rapid recovery.

INDICATIONS

AMBROXOL is indicated to aid in the treatment of catarrhal inflammation of bronchi and the upper respiratory tract in horses and dogs.
Specific indications include:
Chest Infections: acute and chronic bronchopneumonia, catarrhal rhinitis, strangles, post-viral cough
Uterine Infections: pyometron, mucometron
Ocular Infections: purulent conjunctivitis, hypopion

DOSAGE AND ADMINISTRATION

Horses: 0.3 mg/kg (5mL/100kg) bodyweight twice daily.
Dogs: 0.6 mg/kg (1mL/10 kg) bodyweight twice daily.
Administer AMBROXOL by intravenous injection.

WARNINGS

Meat Witholding Period [Horses]: 28 Days

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E03720B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

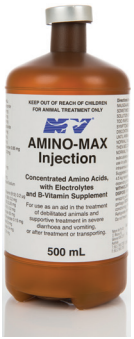
AVAILABILITY

S4 - By Veterinary Prescription (APVMA 51134)

AMINO-MAX

ELECTROLYTE AND AMINO ACID SUPPLEMENT

OTC



Concentrated electrolyte and amino acid supplement with added B vitamins

COMPOSITION

Each 100 mL contains amino acids:
l-histidine hydrochloride monohydate 34 mg
l-methionine 34 mg
dl-tryptophane 34 mg
l-cysteine hydrochloride monohydrate 34 mg
l-threonine 68 mg
dl-isoleucine 68 mg
l-arginine hydrochloride 85 mg
dl-phenylalanine 102 mg
dl-valine 170 mg
l-lysine monohydrochloride 102 mg
l-leucine 136 mg
l-glutamine 136 mg
glucose monohydrate 5 mg
calcium chloride dihydrate 15 mg
potassium chloride 20 mg
magnesium sulfate trihydrate 20 mg
sodium acetate trihydrate 250 mg
vitamin B2 (as riboflavine 5-phosphate sodium) 4 mg
vitamin B12 5 microgram
vitamin B6 10 mg
dexpanthenol 5 mg
nicotinamide 150 mg
methylparaben 180 mg
propylparaben 20 mg
phenol 10 mg as preservatives
disodium ethylenediamine tetra acetate 15 mg
citric acid to adjust pH
distilled water

INDICATIONS

Deblitation, supportive treatment in sick animals, diarrhoea (together with the appropriate medical treatment where indicated), lowered amino acid intake, stress, (including transportation, changed environment, disease or increased protein requirements through heavy exercise or racing), parturition in cattle, pigs, sheep and horses.

WARNINGS

The B vitamins contained in this formulation may be detected in body fluids up to 48 hours after administration.
Precautions: Use sterile injection apparatus. This product is only supportive in action; infective and other disease conditions should receive proper medical treatment.
Withholding Periods: Nil
Adverse Reactions: Nausea and distress may occur if this solution is administered too rapidly. Should these symptoms occur discontinue injection until animal returns to normal, then continue injection at a slower rate.

DOSAGE AND ADMINISTRATION

Horses: 1 mL/4.5 kg bodyweight by intravenous injection/infusion.
Cattle, calves, sheep, pigs: 1 mL/4.5 kg bodyweight by intramuscular, subcutaneous or intraperitoneal injection.

PRESENTATION

500 mL sterile multidose plastic vial. Product Code: E02980B

STORAGE

Store below 25 ˚C (Air Conditioning). Do not freeze. Protect from light.

AVAILABILITY

Export Only product. Not available for sale in Australia.

AMMO® ALLWORMER PASTE

ANTHELMINTIC

OTC

Broad spectrum abamectin and morantel horse worm and bot paste

COMPOSITION

Abamectin 4 mg/mL
Morantel Tartrate 167 mg/mL

ACTIONS

Abamectin acts by binding selectively and with high affinity to glutamate-gated chloride channels in invertebrate nerve and muscle cells. This leads to hyperpolarisation of these cells, resulting in flaccid paralysis and death of the parasite.

Morantel is a depolarising neuromuscular blocking agent producing paralysis by causing muscle contraction.

INDICATIONS

Treatment and control of:
Tapeworms: *Anoplocephala perfoliata*
Large Strongyles: adult & larval stages of *Strongylus vulgaris*
adult & tissue stages of *S. edentatus*
adult stages of *S. equinus*
Small Strongyles: including benzimidazole resistant strains of
adult and immature *Cyathostomum* spp, *Cyliocyclus* spp
Cylicostephanus spp, *Cylicodontophorus* spp
Gyalocephalus spp
adult stages of *Triodontophorus* spp
Pin Worm: adult & immature *Oxyuris equi*
Roundworm: adult & immature *Parascaris equorum*
Hairworm: adult *Trichostrongylus axei*
Neck Threadworm: microfilariae of *Onchcerca* spp
Bots: oral & gastric stages of *Gasterophilus* spp
Lungworm: adult & immature *Dictyocaulus arnfieldi*
Intestinal Threadworm: adult *Strongyloides westeri*
Large mouthed stomach worms: adult *Habronema muscae*
Skin lesions caused by: *Habronema* spp, *Draschia* spp, cutaneous larvae (Summer Sores), and *Onchocerca* spp. microfilariae (Cutaneous Onchocerciasis).

DOSAGE AND ADMINISTRATION

Horses: The contents of one 30 g syringe are sufficient to treat one horse of 600 kg bodyweight. Doses are described in mL, corresponding to the markings on the dial-a-dose syringe.
Foals and Ponies: Administer 5 mL per 100 kg bodyweight.
AMMO Allwormer is safe for use in pregnant mares, in foals over four weeks of age, and in debilitated & convalescent animals.

WARNINGS

Meat Withholding Period (Horses): Do not use less than 28 DAYS before slaughter for human consumption.

PRESENTATION

30 g adjustable dose paste syringe. Product Code: E07030B

STORAGE

Store below 25˚C (Air Conditioning).

AVAILABILITY

For General Sale (APVMA 56187)

SEE ALSO

Moramectin, Nemban

NOTES

A year round worming prevention and treatment program varies with climatic and stocking conditions, but, in general terms all horses should be wormed every 6 - 8 weeks, commencing at approximately 6 weeks of age. All horses newly introduced to a property should be wormed immediately on arrival, and kept away from regularly used paddocks or yards for several days in order to minimise environmental recontamination.

HANDY HINT

Make sure you remove manure regularly from all horse areas (paddocks and stables) to help minimise re-infestation.

AMP-5 INJECTION & PASTE

CORONARY & PERIPHERAL VASODILATOR

OTC

Vasodilator to increase blood flow to cardiac and skeletal muscle

COMPOSITION

Adenosine-5-monophosphate 200 mg/mL

ACTIONS

AMP-5 is a natural vasodilator which produces a marked increase in blood circulation to both skeletal and cardiac muscle.
*AMP-5 increases blood, nutrient & available energy supply to muscle tissues.
*Vasodilation improves removal of wastes to delay fatigue and cramping.
*AMP-5 may help prevent heart strain during and after strenuous exercise.
*AMP-5 is particularly effective combined with CREATINE, TRIPART and / or COPHOS B.
By producing a marked increase in blood supply to muscles and heart, AMP-5 increases the oxygen and essential nutrient supply to these areas during hard work, and improves the efficiency of removal of waste products such as lactic acid, to delay the onset of muscle fatigue. AMP-5 is of value in treatment and prevention of Tying Up for these reasons. Because of its potent vasodilation effect on cardiac muscles, AMP-5 is effective in treatment and prevention of heart strain and exercise induced "T Wave" changes in horses.

INDICATIONS

Production of coronary vasodilation in anticipation of severe cardiac load in athletic animals or in treatment of myocardial oxygen deficit (as evidenced by performance linked ECG changes). Muscle cramp, 'tying up' prevention.

DOSAGE AND ADMINISTRATION

Injection:
Do not administer by intravenous injection: anaphylactic reactions have been reported. Administer by intramuscular injection.
Horses: 2.5 mL per 100 kg bodyweight.
Dogs: 0.5 mL per 10 kg bodyweight.
Two injections 24 hours and 4 - 6 hours before expected strenuous exercise.

Paste:
Adult horse: 10 mL
Dogs: 1 mL per 10 kg
Administer two doses. Give first dose 24 hours before, and again 4 - 6 hours before expected strenuous exercise.
To administer: Place the nozzle into the side of the mouth and deposit the paste as far back over the tongue as possible.

WARNINGS

Meat Withholding Period (Horses): Do not use less than 28 DAYS before slaughter for human consumption.
Do not administer by intravenous injection.

PRESENTATION

20 mL sterile multidose glass vial. Product Code: E03010B
250 g paste pot. Product Code: E06920B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale ([Injection] APVMA 51114)

SEE ALSO

L-Carnitine, Creatine, Cophos B, Tripart

HANDY HINT

Use AMP-5 in combination with COPHOS B 24 hours and again 4-6 hours pre-event, to improve blood and nutrient supply to hard working muscles.

COpHOS B INJECTION & PASTE

ENERGY RICH PHOSPHATE SUPPLEMENT

OTC

Phosphorus and Vit B12 supplement to buffer lactic acid and promote muscle function

COMPOSITION

Ethanolamine Phosphate 100 mg/mL
Cyanocobalamin (Vitamin B12) 50 µg/mL

ACTIONS

COPHOS B is a muscle buffer and muscle energy support supplement for horses in hard work.
*Phosphate is the major body buffer.
*Phosphate is essential for muscle function and oxygen transport, and is often deficient in diets.
*COPHOS B improves muscle energy supplies, endurance and power output.
*COPHOS B improves recovery after hard work.
*COPHOS B may help delay muscle fatigue.
*COPHOS B supplemented horses work harder for longer!
COPHOS B supplies readily available, energy rich phosphate which is essential to muscle function and to buffer excessive lactic acid in body systems. In addition, COPHOS B provides Vitamin B12 essential to metabolic processes and to maintain appetite.
Hard physical exercise results in large losses of muscle phosphate, in both aerobic and anaerobic work. The body cannot make phosphate, so the diet must provide all requirements. Phosphate is essential to buffer lactic acid produced during hard work, as well as in the formation of adequate glycogen to fuel physical activity, and in the conversion of glycogen to produce fuel for muscles. Finally phosphate is critical in allowing oxygen to be "dumped" from blood cells into the muscle fibres where it fuels muscle contractions. Supplementing with phosphate supplies adequate essential phosphate required in large amounts during exercise, and allows more efficient recovery. As a major body buffer phosphate lowers the lactic acid level in working muscles by helping maintain plasma pH within normal limits, which delays acidosis and muscle fatigue. Used regularly during training and work COPHOS B improves muscular efficiency and endurance and improves recovery after hard work.

INDICATIONS

To improve energy and oxygen supply to muscles, increase maximum oxygen uptake and power output, delay onset of fatigue and promote muscle recovery in performance horses.

DOSAGE AND ADMINISTRATION

Injection:
Administer by intramuscular injection.
Horses: Give 30 mL per 450 kg by injection twice weekly.
Dogs: Give 1 mL per 15 kg bodyweight by injection twice weekly.
Oral paste:
Adult Horse: 10 mL
Dogs: 1 mL per 10 kg
Administer 2 - 3 times weekly. To administer, place the nozzle into the side of the mouth, and deposit the paste as far back over the tongue as possible.
COPHOS B is highly effective when given within 4 - 6 hours of anticipated hard work.
COPHOS B is also very effective when given after hard work, to improve muscle recovery and the reconstitution of essential body glycogen reserves.
COPHOS B is safely used with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E03120B
250 g paste bag. Product Code: E07120B

STORAGE

Injection: Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (Injection; APVMA 51121)

SEE ALSO

AMP-5, Tripart, Creatine, Green Amino Drench
Horses and Greyhounds supplemented with COPHOS B exercise harder for longer.

COSEQUIN EQUINE POWDER

ANTI-ARTHRITIC / CHONDROPROTECTIVE AGENT

OTC

Highly purified promoter of cartilage synthesis, repair and protection

COMPOSITION

COSEQUIN EQUINE Powder Concentrate is a patented combination, where each level scoop (3.3 g) contains:
Glucosamine Hydrochloride 1800 mg, Purified Low Molecular Weight (LMW) Sodium Chondroitin Sulfate 600 mg Manganese Gluconate, Calcium Ascorbate

ACTIONS

COSEQUIN EQUINE plays an important role in maintaining optimal joint function. The superior quality ingredients in our patented product provide the the raw materials that work in combination to provide long-term treatment which helps improve joint function.
COSEQUIN EQUINE is an exclusive formula of two important ingredients that work synergistically: Low Molecular Weight Sodium Chondroitin Sulfate, and Glucosamine Hydrochloride.
Glucosamine Hydrochloride - stimulates formation of both synovial (joint) fluid and cartilage matrix
Chondroitin Sulfate (CS) - is another fundamental building block of joint cartilage and oral administration in combination with glucosamine has demonstrated positive effects on equine osteoarthritis[1,2]. Molecular weight markedly affects CS absorption in horses and Cosequin Equine contains a low molecular weight CS with proven, rapid oral availability[3].
In addition to being the major glycosaminoglycan (GAG) found in cartilage, CS provides protection by inhibiting degradative enzymes.
Cartilage replenishes its major components by manufacturing and remodelling large amounts of collagen and proteoglycans. This constant and ongoing synthesis process generates extremely large demands for the basic building blocks of both collagen and proteoglycans. If the raw materials are not available in the amounts required, at the time they are required, this synthetic process is impaired, and the cartilage loses the ability to replenish itself.

INDICATIONS

Long term treatment with Cosequin may help improve joint function.

DOSAGE AND ADMINISTRATION

COSEQUIN EQUINE is designed for daily supplementation. The initial administration period is 4 - 6 weeks. Most horses will respond during this time. If the horse shows little or no improvement in motion after 30 days, extend the initial loading dosage a further two weeks or revise diagnosis of the horse's condition.
Add powder to moistened feed. Powder can be dosed orally with a syringe after mixing with water or molasses.

Initial Administration (Loading Dose): *Adult Horse 500 kg:* 5 level scoops twice daily (AM & PM).
Transition Period: Do not lower dose until horse has begun to respond to supplementation. After a good response is achieved, reduce the total daily dosage by one level scoop each month. Gradually reducing the daily dose in this manner will help find the individual maintenance level more easily. Always observe the movement and attitude to ensure that the horse is still comfortable after each transition.
Maintenance Administration: *Adult Horse 500 kg:* 1 level scoop twice daily (AM & PM). Dosage may be increased at any time to maintain desired comfort level, even in days prior to anticipated hard competition. Simply reduce to maintenance levels after competition is finished.
Horses taking Cosequin purely for protection (i.e. they do not show current clinical signs of osteoarthritis) may proceed directly to daily long-term maintenance dosing.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

700 g tub. Product Code: E06110B

STORAGE

Store below 30˚C (Room Temperature) out of direct sunlight. Keep lid tightly closed to ensure freshness. Protect from moisture.

AVAILABILITY

For General Sale (APVMA 53599)

SEE ALSO

Joint Guard, Joint Guard Plus

REFERENCES

1. Hanson et al, *Eq Pract.* 1997;19:16-22
2. Hanson et al, *Vet Therap.* 2001;2:148-159
3. Du et al, *Biopharm Drug Dispos* 2004;25:109-116

CREATINE PASTE

CREATINE & CHROMIUM SUPPLEMENT

OTC

Creatine and chromium to enhance energy supply and endurance of muscles

COMPOSITION

Tri-Creatine Malate 200 mg/g
Chromium Aminomin 100 µg/g

ACTIONS

CREATINE is an amino acid which is critically involved in supporting energy supply to muscles. Muscle contraction depends entirely on ATP (adenosine triphosphate) as an energy source. As ATP releases energy it is broken down into ADP plus a high energy phosphate. Creatine, as Creatine phosphate, converts ADP back into ATP, so that muscle contractions are able to continue after initial ATP reserves are used. Creatine, like ATP, is essential for muscle function.
*CREATINE paste is a source of Creatine and Chromium.
*CREATINE increases energy supply to muscles, and reduces lactic acid accumulation to delay fatigue.
*CREATINE improves work output of muscles by improving availability of ATP.
*CREATINE improves muscle protein synthesis, muscle desnity & strength, and maximum work output.
Creatine provides a vital source of energy to allow ADP to be remanufactured into ATP, so that muscle activity can be continued. Creatine phosphate is stored in muscle tissue, ready to fuel muscle activity. High creatine levels, and thus improved ATP supply, prevent the muscles using glycolysis for energy production.
This is important as glycolysis produces lactic acid, which, in time, creates lactic acidosis, muscle fatigue and loss of performance and can contribute to the development of 'tying up'. By reducing lactic acid formation, Creatine helps delay the onset of muscle fatigue.
Creatine also improves the body's ability to manufacture the proteins used during muscle contraction. This results in increased muscle density, size and strength.
Chromium enhaces the activity of Insulin. Insulin is vital to many body functions - most importantly dealing with body sugar and facilitating muscle growth. Supplementation with chromium has been shown in trials in horses and humans to increase muscle weight gain and decrease body fat. Supplementation with chromium is important for optimal muscle development, as most diets are deficient in chromium.
The combination of chromium and creatine has a powerful muscle conditioning effect, and significantly improves available energy supplies to muscles during exercise.

INDICATIONS

To support energy supply to muscles.

DOSAGE AND ADMINISTRATION

Horses: CREATINE should be given as a twice daily oral dose of 10 - 15 mL for 3 - 4 days prior to expected hard work. Give the final dose within 4 - 6 hours of anticipated strenuous exercise.
Dogs: 1 mL per 10 kg
To administer: Place the nozzle into the side of the mouth, and deposit the paste as far back over the tongue as possible.
CREATINE is commonly used in combination with AMP-5 (a vasodilator which improves oxygen supply to skeletal and cardiac muscle), or L-CARNITINE. CREATINE and CHROMIUM are also included in other Ceva products including NATROZOL POWDER.
Creatine is safe to use with all other Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g paste pot. Product Code: E13210B

STORAGE

Store below 30˚C (Room Temperature). Protect from light.

AVAILABILITY

For General Sale

SEE ALSO

Natrozol, AMP-5, L-Carnitine, Tripart

HANDY HINT

Sprinters can benefit from the combination of AMP-5 given 24 hours, and gain 4 - 6 hours pre-event, and CREATINE loaded into muscles by giving twice daily doses for 3 - 4 days prior to hard exercise, with the final dose given within 4 - 6 hours of hard work.

CU-ALGESIC EQUINE PASTE

ORAL ANTI-INFLAMMATORY

S4

Oral, Non-Steroidal Anti-Inflammatory (NSAID) with low gastro-intestinal toxicity and rapid excretion

COMPOSITION

Cu-Algesic is a patented chelate formulation of Copper Indomethacin, available as:

Cu-Algesic Equine Oral Paste Anti-Inflammatory for Horses:

Active constituent: Copper indomethacin 40 mg/g

ACTIONS

Cu-Algesic is a potent non-steroidal anti-inflammatory and analgesic for the treatment of acute and sub-acute musculo-skeletal / locomotor inflammatory conditions in horses.

Cu-Algesic provides excellent analgesia, as well as potent anti-inflammatory activity, with very low gastro-intestinal toxicity, unlike most other NSAIDs. Cu-Algesic is the only NSAID known to be a free radical scavenger. Cu-Algesic has a once daily dosage regime, plus predictable short excretion rates, even with repeated dosing.

INDICATIONS

Cu-Algesic is indicated for conditions requiring a potent anti-inflammatory action with excellent analgesia, with reduction of side effects usually associated with long term use of other NSAIDs. These conditions include acute and sub-acute musculoskeletal / locomotor inflammatory conditions such as osteitis (shin soreness), pedal osteitis, navicular disease, sesamoiditis, synovial arthritis, osteoarthritis, bursitis, tenosynovitis, spondylitis, tendonitis, ligament inflammation, and ocular conditions such as uveitis.

Copper chelation of the parent NSAID (Indomethacin) produces a unique pharmacological substance with increased anti-inflammatory potency, broader inhibition of inflammatory reactions, and reduction of adverse side effects, especially gastro-intestinal ulceration.

Copper indomethacin is a prostaglandin cyclo-oxygenase 1 & 2 (Cox 1 & 2) inhibitor. Additionally, the lipoxygenase pathway is inhibited. It also inhibits kallikreins, and thereby bradykinin formation, which, with histamine and prostaglandins, produce the pain of inflammation.

Copper chelates are free radical scavengers by Superoxide Dismutase mimetic activity. Superoxide free radicals are involved in the degradation of hyaluronic acid in inflamed joints and in perpetuation of the inflammatory cycle. Copper indomethacin is therefore ideal for the use in joint disease, and is indicated for prevention of reperfusion injury. The broad combination of modes of action helps to reduce gastro-intestinal and renal toxicity.

Cu-Algesic is rapidly absorbed from the gastro-intestinal tract. Peak plasma levels are achieved within 3 - 4 hours of administration. Plasma half-life of Cu-Algesic in the horse is approximately 24 hours. Cu-Algesic is rapidly and predictably excreted, provided hepatic and renal function are normal.

Copper indomethacin may be used with caution as subsequent oral NSAID therapy following parenteral treatment with other NSAIDs (e.g. phenylbutazone or salicylates). There is no evidence of either synergy or antagonism between copper indomethacin and other NSAIDs. Use of two NSAIDs together generally summate therapeutic and toxic effects, and extends clearance times. Renal or hepatic conditions may alter the pharmacokinetics.

DOSAGE AND ADMINISTRATION

Plunger is marked in 5 g increments

Give 10 g / 500 kg bodyweight by direct oral dosing initially, then 5 g / 500 kg once daily as required (i.e. 1 g per 100 kg bodyweight once daily)

WARNINGS

Safety in young foals or during pregnancy has not been conclusively demonstrated, and veterinarians should exercise normal caution in prescribing anti-inflammatories during these times.

Meat Withholding Period (Horses): DO NOT USE less than 28 days before slaughter for human consumption.

PRESENTATION

30 g oral paste syringe (5 day course). Product Code: E05710B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 56262)

SEE ALSO

Salbute, Salsprin

DADA 250 INJECTION

PERIPHERAL AND CEREBRAL VASODILATOR

S4

Detoxifier and vasodilator to increase blood flow to brain and peripheral tissues

COMPOSITION

Contains:
Di-isopropylamine Dichloroacetate (DADA) 250 mg/mL

ACTIONS

DADA is a vasodilator of peripheral and cerebral arterioles. It is also considered to aid in the detoxification of metallic and chemical metabolites, possibly by the formation of chelate-like compounds whose excretion by the kidneys is facilitated and increased.
DADA increases cortical glucose uptake and oxygen utilisation.

INDICATIONS

DADA 250 is used in the routine support of horses and dogs under the stress of training and hard work, and / or as an adjunct in the treatment of heavy metal, nitrate, or organic phosphate intoxications. In the latter case, the combination of DADA 250 with the amino acids lysine and arginine seems to have a potentiating action.

DOSAGE AND ADMINISTRATION

Horses: Administer by intramuscular injection.
Routine Training: 5 - 10 mL twice weekly
Acute Intoxication: 10 - 20mL twice daily
Dogs: Administer by intramuscular injection only.
Routine Training: 0.5 - 1 mL twice weekly

WARNINGS

Meat Withholding Period [Horses]: Nil

PRESENTATION

50 mL sterile multidose glass vial. Product Code: E03810B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 41592)

SEE ALSO

AMP-5, Tridenosen, Heptam, Heptenal

DETOMO VET® INJECTION

ANALGESIC , SEDATIVE, MUSCLE RELAXANT

S4

Detomidine sedative, analgesic and muscle relaxant

COMPOSITION

Contains:
Detomidine Hydrochloride 10 mg / mL

ACTIONS

Detomidine is a non-narcotic sedative, analgesic, and muscle relaxant, with a rapid dose-dependent effect. Sedation may be expected within 1 - 5 minutes following intravenous injection (slightly longer following intramuscular administration). Detomo Vet is an alpha-2 adrenoceptor agonist at central and peripheral sites. Its central depressive action produces sedation without any hypnotic effect. Detomo Vet produces analgesia by inhibition of CNS-mediated transmission of pain impulses and pain sensation. Full analgesic effect is expected 5 - 15 minutes after administration. A period of sedation is maintained for 0.5 - 6 hours, depending on the dose rate given.

INDICATIONS

Detomo Vet can be used in any situation requiring reliable sedation of horses, particularly if analgesia is also required. As a sedative, the dose can be altered to produce reliable variations in depth and duration of sedation.

Examples of indications for use include sedation for diagnostic or radiographic procedures; dental procedures; transport and clipping. Although Detomo Vet causes reduced levels of consciousness, horses will remain standing (do not support the horse artificially - it will seek and find its own unsupported balance).

Horses sedated with Detomo Vet experience fewer involuntary gross motor movements (e.g. involuntary kicking) than experienced under other non-narcotic sedatives such as Acepromazine or Xylazine.

Diagnostic Procedures: which may cause discomfort or resentment, such as catheterisation, oral and ophthalmic examinations, rectal and vaginal investigations.

Minor Surgery: including application and removal of casts, dressing changes, minor suturing, surgical procedures with local anaesthetic. Use alone or in conjunction with narcotics such as butorphanol.

Pre-anaesthesia: Detomo Vet may be used as a reliable pre-anaesthetic sedative. At recommended dose rates Detomo Vet will produce a potentiation of the effects of CNS depressant barbiturate anaesthetic agents. The dosage of such compounds should be correspondingly reduced and administered to effect.

Colic: Detomo Vet is an effective analgesic sedative in the horse, with full analgesic occurring 5 - 15 minutes after administration. Like other alpha-2 adrenoreceptor agonists, some smooth muscle relaxation may occur when using Detomo Vet. Therefore it is useful when cases of spasmodic colic have been diagnosed by the veterinarian. Do not use when colic is originating from literal or functional intestinal obstructions or from paralytic ileus.

Radiography: use a low dose of Detomo Vet (see dosage schedule) to aid positioning of xrays.

Withhold feed until the effects of the drug wear off. Failure of relief, or very short relief of pain following administration is often an indication of the need for surgical intervention in colics.

DOSAGE AND ADMINISTRATION

Detomo Vet can be given either intravenously or intramuscularly, as required. The effect is dose-dependent. The following scale can be used as a guide:

Depth of Sedation	Duration (hrs)	Dose (mL / 100 kg)	Dose (mg/kg)
Mild	0.5 - 1 hr	0.1 - 0.2	0.01 - 0.02
Moderate	1.0 - 2.0 hrs	0.2 - 0.4	0.02 - 0.04
Heavy	2.0 - 6.0 hrs	0.4 - 0.8	0.04 - 0.08

For analgesia in cases of spasmodic colic, give:
0.2 - 0.4 mL / 100 kg (0.02 - 0.04 mg/kg).

This table should be considered as a base from which dosage can be modified to effect, according to the depth and duration of analgesia or sedation required.

Do not store at low temperatures. Any unused portion should be discarded 3 months after first broaching vial.

DETOMO VET INJECTION

ANALGESIC , SEDATIVE, MUSCLE RELAXANT

S4

Continued from previous page...

WARNINGS

When sedating horses in a crush or stables with Detomo Vet, take care that the head is not allowed to drop over the crush front or stable door, as obstruction of the trachea and subsequent hypoxia may result in hypoxic collapse.

Detomo Vet is not recommended for use in pregnant mares.

Use with caution in stallions during the breeding season as penile relaxation may occur.

Because of possible interactions, it is recommended that intravenous potentiated sulphonamides should not be administered to horses sedated with Detomo Vet.

Feed should be withheld until the effects of the drug have worn off.

For painful procedures, particularly surgery, local anaesthetics should be used when required as the duration of analgesia from Detomo Vet may not equate with duration of sedation.

Meat Witholding Period: NOT TO BE USED in horses that may be slaughtered for human consumption.

PRESENTATION

10 mL sterile glass multidose vial for injection. Product Code: E03910B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 59701)

NOTES

Other effects of Detomo Vet administration include:

- Piloerection, sweating, diuresis and occasional slight tremors, particularly at higher doses.
- Decrease in heart rate and increase in arterial blood pressure at the recommended dose levels. Recovery to pre-administration rate and pressure occurs at approximately the same time as the clinical effect wears off
- Slight and transitory arrhythmias, and secondary A-V and S-A blocks may occur.
- Reduced involuntary gastrointestinal movements.
- Respiratory rate is depressed and then increases; respiratory pauses may occur.
- CNS depression causes reduced consciousness but animals will remain standing.
- Overdose may be treated with atropine or specific alpha-2 antagonist.

ADDITIONAL SAFETY INFORMATION

Detomo Vet is a centrally acting alpha-2 adrenergic agonist similar in its pharmacology to clonidine. If Detomo Vet is accidentally administered to humans, seek immediate medical advice. Promptly wash off any accidental spillages. Accidenal administration to humans may produce hypertension of variable duration which may be followed by hypotension. First stage aid should include careful monitoring of the blood pressure with administration of phentolamine if dangerous levels of hypertension develop. Hypotension should be treated with fluid replacements and other supportive measures.

SEE ALSO

Thiazine 100, ACP

DIUREX INJECTION

DIURETIC FOR HORSES

S4

Diuretic agent used to reduce blood volume and pressure

COMPOSITION

Contains:
Ammonium Chloride 5.4 mg/mL

ACTIONS

Ammonium chloride causes a transient diuresis. When administered before exercise, diuresis results in a reduction in blood volume which may help reduce the incidence of exercise-induced pulmonary haemorrhage (EIPH).
Reduction in blood volume results in a reduction in the exercise induced rise in pulmonary arterial pressure, pulmonary arterial wedge pressure and capillary pressure.
Elevated pulmonary pressures are implicated in causing EIPH, thus reducing pulmonary pressure may help reduce the incidence of EIPH.

INDICATIONS

To induce transient diuresis

DOSAGE AND ADMINISTRATION

Horses: Give 50 mL by slow intravenous injection 4 - 5 hours before strenuous exercise.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

50 mL sterile glass bottle. Product Code: E00610B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 58590)

SEE ALSO

Hi-Vite C

DMG INJECTION

DIMETHYL-GLYCINE SUPPLEMENT

S4

Dimethyl glycine supplement to aid circulation, performance, endurance and recovery

COMPOSITION

Contains:
Dimethyl glycine hydrochloride 100 mg/mL

ACTIONS

Dimethylglycine (DMG) is a naturally occurring nutrient which is described as an ergogenic food factor, or antistress nutrient.
DMG enhances the metabolism to improve endurance in performance horses by reducing lactic acid accumulation in muscles.
DMG improves oxygen utilisation and increases glycogen, creatine phosphate, phospholipid and total lipid content in cardiac and skeletal muscle.
DMG increases the body's tolerance to hypoxia, increases oxygen uptake by tissues, improves circulation, and reduces lactic acid production during exercise.
Stamina and endurance are improved by an increase in oxygen utilisation and reduction in lactate accumulation in muscles, resulting in increased endurance via a glycogen sparing effect.
DMG acts as a key element in the biological pathway which maximises the amount of energy produced per molecule of oxygen consumed.
DMG also acts as an anti-oxidant, protecting cells from damage caused by free radicals (the waste products of energy production), and helps to enhance the immune response (so acts as an antistress nutrient). DMG transports oxygen for ATP production in muscle tissue.
Supplementing with DMG has a number of benefits for athletic animals: enhanced energy supply, increased oxygen utilisation, and decreased accumulation of lactic acid in muscle tissue. Studies in both horses and greyhounds have demonstrated the ability of DMG to improve stamina and endurance, as well as improve recovery after hard physical exercise.
DMG is also indicated for cardio-pulmonary insufficiency and poor circulation.
DMG supplementation is commonly used in human athletes to improve overall performance and endurance, to enhance oxygen utilisation, and to improve recovery.

INDICATIONS

To enhance metabolism to improve endurance in performance horses by reducing lactic acid accumulation in muscles.

DOSAGE AND ADMINISTRATION

Horses: 15 mL daily for 3 - 4 days prior to strenuous exercise (by intravenous injection).
Dogs: 3 mL by intravenous injection.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E00520B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.
DMG may be used with any Ceva product.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 61343)

SEE ALSO

Lactanase, L-Carnitine, AMP-5, Creatine, Natrozol

ELECTROVITE® PASTE

ELECTROLYTE VITAMIN SUPPLEMENT

OTC

Oral electrolyte and vitamin replacement for animals undergoing travel, heavy exercise and / or sweating

COMPOSITION

Each 1 mL contains:

Vitamin E 16.83 mg/mL	Vitamin B1 1.7 mg/mL
Vitamin B2 1.44 mg/mL	Vitamin B3 5.55mg/mL
Vitamin B6 0.17 mg/mL	Vitamin B12 0.68 mg/mL
Folic Acid 0.35 mg/mL	Calcium 20.9 mg/mL
Magnesium 24.3 mg/mL	Sodium 62.4 mg/mL
Potassium 81.1 mg/mL	Zinc 1.34 mg/mL
Chloride 206.7 mg/mL	

ACTIONS

ELECTROVITE Paste is an electrolyte and B group vitamin supplement for horses. ELECTROVITE Paste replaces electrolytes lost by dehydration as well as supplying B group vitamins required for carbohydrate metabolism and muscle function and the antioxidant, Vitamin E to help reduce cellular damage during exercise.

The maintenance of a proper balance of body fluids is critical to athletic performance. Dehydration (loss of body fluid balance) will rapidly reduce the capacity of training to peak fitness, and can in extreme cases, result in muscle damage.

Athletic horses are subjected to significantly greater stresses than resting horses. Such stresses can disrupt the physiological balance required for optimum performance.

Horses under heavy exercise loads, or under physical stress such as long truck or float trips, have higher requirements for vitamins (particularly B group) and minerals such as magnesium and zinc which are used in cell metabolism. ELECTROVITE Paste is also very effective when given to horses in heavy training, particularly in hot weather, when nutrients are lost more easily through sweat.

DOSAGE AND ADMINISTRATION

To administer, place the nozzle into the side of the mouth, and deposit the paste as far back over the tongue as possible. Give dose during or after competing, racing or other strenuous exercise.

Dose Rate: *Adult Horse:* 400 - 500 kg: 30 mL = 8 divisions

Ponies: 200 - 300 kg: 15 mL = 4 divisions

Repeat dose on the morning after exercise to continue to promote recovery of horses with reduced appetite or thirst.

Electrolyte replacement through use of Electrovite Paste should ideally correspond to sweat loss which can vary with exercise intensity and environmental conditions.

Always ensure access to fresh, clean drinking water after dosing.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

60 g syringe. 12 syringes per outer. Product Code: E07210B

STORAGE

Store below 30˚C (Room Temperature). Replace the cap after each use and store the syringe on its side.

AVAILABILITY

For General Sale

SEE ALSO

Energetic Isotonic, Race Electrolyte

NOTES

No Two Horses Are The Same; Horses which suffer heavy sweat loss have different electrolyte requirements than those which sweat very little. The same argument applies to horses that perform long, hard daily exercise routines, compared to those with minimal work programs. There is a significant difference in requirements between thoroughbreds, trotting horses, endurance horses, polo ponies, eventers and jumpers. In addition, regardless of the climate, no two horses will handle the same work program in the same manner. A horse with a nervous disposition which causes excessive excitement may have more sweat loss compared to other more composed horses. It is impossible to determine an animal's individual electrolyte needs without a blood analysis.

ENERGETIC ISOTONIC POWDER

PRE AND POST RACE ELECTROLYTE

OTC

Isotonic balanced electrolyte and recovery formula to optimise energy supply and recovery

COMPOSITION

Sodium, Chloride, Potassium, Magnesium, Sucrose, Calcium, Phosphourus, Maltodextrin, Triglycerides, Branched-chain Amino Acids, Antioxidants (Betacarotene, Vitamin E, Vitamin C), B Vitamins

ACTIONS

ENERGETIC provides electrolytes to help maintain optimum body fluid composition and prevent dehydration. It also provides the readily available energy sources glucose & medium chain triglycerides; the biological antioxidants Vitamins C and beta carotene; and branched-chain amino acids.

Medium Chain Triglycerides supply highly bioavailable fatty acids which are rapidly absorbed and converted to energy in working muscles. Glucose and Maltodextrin are highly bioavailable carbohydrates of value during the stages of racing requiring maximum exertion, where energy availability is critical.

The balanced electrolytes help maintain normal body function within optimum range for maximum performance.

Antioxidants are essential to reduce cell damage, particularly to muscle and blood vessels, which occurs after any exercise. The more strenuous the exercise, the more the cell damage from free radicals. Adequate training reduces the likelihood of free radical damage, but antioxidants are always required by the body.

The maintenance of a proper balance of body fluids is critical to athletic performance. Dehydration (loss of body fluid balance) will rapidly reduce the capacity of training to peak fitness, and can in extreme cases, result in muscle damage.

Athletic horses are subjected to significantly greater stresses than resting horses. Such stresses can disrupt the physiological balance required for optimum performance.

Horses under heavy exercise loads, or under physical stress such as long truck or float trips, have higher requirements for vitamins (particularly B group) and minerals such as magnesium which is used in cell metabolism.

Horses quickly learn to drink this product in water, or to eat it in their feed, which makes it very useful when travelling and campaigning horses in strange venues where they may be reluctant to drink.

When using ENERGETIC in the feed, always ensure free access to clean, palatable drinking water.

DOSAGE AND ADMINISTRATION

One 250g sachet of ENERGETIC can ideally be mixed in 2.5 litres water, and the horse is able to drink this whenever required. In this manner, ENERGETIC can be provided wherever the horse is travelling to, or easily at home.

ENERGETIC is safely mixed as a powder in food, as long as horses drink shortly after eating. Mix one sachet in food 24 hours before travel or hard work. Endurance and other hard working horses may be supplemented with ENERGETIC in drinking water at rest stops whenever required.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g resealable foil sachet. Product Code: E11210B

STORAGE

Store below 30˚C (Room Temperature). Keep out of reach of children.

AVAILABILITY

For General Sale

SEE ALSO

Recovery, Tripart, Green Amino Powder, Cophos B, VAM

HANDY HINT

Mix Energetic in 2.5 litres of water, for horses to drink whenever required to help prevent dehydration and travel stress.

EQUI-IRON INJECTION

HIGH POTENCY BIOAVAILABLE IRON

OTC

Highly bioavailable organic iron supplement

COMPOSITION

Each 20 mL contains iron 400 mg as iron (III) hydroxide-sucrose compound in aqueous solution.

ACTIONS

The complex when injected breaks down into carbohydrates and the trivalent iron hydroxide which is stored in the form of ferritin (depot iron) in the liver, from where it is transported in the form of transferrin to the site of erythropoiesis. Haemoglobin formation and replenishment of the iron depots takes place more rapidly and efficiently than with oral administration. Continuous oral administration causes a mucosal block preventing further absorption of iron.

INDICATIONS

Prevention and treatment of iron deficiency anaemia in horses.

WARNINGS

Discard any unused solution.
In extremely rare instances an anaphylactic reaction may occur. Appropriate treatment for anaphylactic shock should be instituted.

DOSAGE AND ADMINISTRATION

For intravenous injection by a veterinary surgeon only.
Foals: 10 mL (200 mg)/week.
Yearlings, adults: 20 mL (400 mg)/week.
Duration of treatment depends on the severity of the iron deficiency. Up to 10 injections may be necessary.

PRESENTATION

20 mL sterile multidose glass vial. Product Code: E21910B

STORAGE

Store below 25˚C (Air Conditioning). Do not refrigerate or freeze. Protect from light.

AVAILABILITY

For General Sale (APVMA 63024)

SEE ALSO

Pre-Ferrin, VAM

FERROCYL INJECTION

ORGANIC ARSENIC, IRON AND COPPER

OTC

Organic arsenic, iron and copper supplement

COMPOSITION

Sodium cacodylate 6.4 mg/mL
Ferric chloride 0.68 mg/mL
Copper gluconate 0.19 mg/mL

ACTIONS

* FERROCYL is a preparation of organic arsenic, iron and copper of low toxicity to stimulate red blood cell production.
* FERROCYL improves appetite in difficult eaters, and improves skin and coat condition.
* FERROCYL promotes recovery from stress, debility, parasitism and poor nutrition.
* FERROCYL assists horses under the stress of training and racing.

FERROCYL is an injectible organic arsenic and mineral treatment for anaemias and debilitated states in horses.

FERROCYL combines the therapeutic properties of pentavalent arsenic compounds with readily available iron and copper. This combination makes FERROCYL suitable for treatment of iron responsive anaemias, and as a tool for stimulation of horses in debilitated states, slow convalescence, inappetance, and nutritional and performance related stress.

The organic arsenic in FERROCYL increases skin and gut blood circulation, promotes a healthy coat growth, and stimulates appetite, while the iron and copper stimulate red blood cell and haemoglobin production for improved blood counts, improved oxygen transport and improved performance. Copper is an essential component of many body functions.

INDICATIONS

TO ASSIST IN TREATMENT OF IRON RESPONSIVE ANAEMIAS IN HORSES AND DOGS.

FERROCYL has particular application in the following states:

* Shy, picky eaters. The effect is usually rapid, after only 2 - 3 injections. Good eaters will recover more rapidly from stress. With the return of normal appetite any anaemias are often quickly corrected.
* To promote recovery from poor nutritional states, after worming or during hard training or convalescence from illness or injury.
* For overtrained or run down performance horses under stress.
* To improve horses brought into training after long spells.
* After serious illness or injury, parasitism or chronic haemorrhage.

DOSAGE AND ADMINISTRATION

Horses: Give 30 mL by intramuscular injection or as directed by your veterinary surgeon every second day. Repeat as indicated by a veterinary surgeon.

Dogs: 1 to 5 mL daily or every other day.

FERROCYL can be combined with VAM to provide all essential nutrients and co-factors for improved production of new red blood cells.

WARNINGS

Meat Withholding Period (Horses): Do not use less than 28 DAYS before slaughter for human consumption.

Caution: Sodium cacodylate is an organic arsenic compound.

Do not use arsenic preparations for continuous treatment. A period of at least one month should pass before treatments are repeated.

PRESENTATION

100 mL sterile glass multidose vial. Product Code: E03220B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 52510)

SEE ALSO

Pre-Ferrin, VAM, Jurocyl

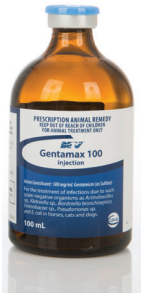
NOTES

Ferrocyl is indicated whenever anaemia is evident. Many fit, athletic horses have a degree of anaemia. Horses which are difficult eaters, recovering from illness, injury or parasitism, stressed from hard training and racing, or recovering from blood loss may all respond positively to FERROCYL. Provide all other essential nutrients and co-factors to improve blood production by combining with VAM paste two to three times weekly.

GENTAMAX 100 INJECTION

BROAD SPECTRUM ANTIBIOTIC

S4



Broad spectrum gentamicin antibiotic

COMPOSITION

Contains:
Gentamicin 100 mg/mL (as the sulfate)

ACTIONS

Gentamicin is an aminoglycoside antibiotic which is bactericidal by inhibiting protein synthesis in susceptible bacteria. Gentamicin is not significantly bound by animal protein and hence provides useful concentrations in peritoneal and pleural fluids. Its clearance rates may be reduced in cases of renal impairment, and prolonged courses are considered to be potentially nephrotoxic.
Gentamicin should only be used when the target bacterial species is known to be sensitive to this antibiotic.
Gentamicin is effective against a range of gram negative bacteria including: *Actinobacillus* sp., *Klebsiella* sp., *Bordetella bronchiseptica, Enterobacter* sp., *Pseudomonas* sp. and *E.coli*.

INDICATIONS

Gentamicin is indicated in infections in horses, dogs and cats which are known to be responsive to Gentamicin.
GENTAMICIN is rapidly absorbed following parenteral administration but reaches only low concentrations in the CSF and eye. Peak serum concentrations are reached within 30 - 60 minutes after intramuscular injection. Therapeutic plasma concentrations are maintained in the horse for up to 6 hours following intramuscular injection. Gentamicin crosses the placenta. Excretion is primarily by glomerular filtration.
Because of its rapid absorption after administration, and rapid bactericidal action, Gentamicin is particularly useful in acute infections, particularly of the urinary tract, reproductive tract and respiratory system.

DOSAGE AND ADMINISTRATION

Horses: 1.5 mg/kg every eight hours.
Mares – Intra-uterine infusion – 2.5 g, diluted in 400 mL sterile normal saline. Infuse daily for 3 - 5 days during oestrus.
Cats and Dogs: 4.0 mg/kg twice on the first day then once daily.
Give by sterile subcutaneous, intramuscular or intravenous injection.

WARNINGS

Administration should not exceed 5 days.
Do not use in animals with impaired renal function.
Avoid using Gentamax in small cats and dogs as there is a risk of overdosing due to the very small injection volumes required. Use only in situations where sensitivity indicates that there is no suitable alternative antibiotic.
Do not use in pregnant animals, as gentamicin crosses the placenta.
Meat Witholding Period: NOT TO BE USED in horses that may be slaughtered for human consumption.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E04020B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.
Use the contents of the vial within 3 months of initial broaching and discard any unused portion.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 55873)

NOTES

Veterinarians are referred to the chapter "Antibiotics" by W. M. Pedersoli (1983. "Current Therapy in Equine Medicine", Ed. Robinson, Pub. Saunders Co. pg 43 – 57) for a comprehensive review of antibiotic therapy in the horse and Gentamicin's place in it.

GLUCOSAMINE 200 INJECTION

ANTI-ARTHRITIC/CHONDROPROTECTANT

S4

Anti-inflammatory, anti-arthritic, chondroprotective agent for IV use in horses

COMPOSITION

Contains:
Glucosamine hydrochloride 200 mg/mL

ACTIONS

Glucosamine is utilised in the production of glycosaminoglycans (GAGs) which then combine with hyaluronic acid (HA) to form large proteoglycans in the matrix of cartilage. As such, glucosamine is a fundamental molecule for the synthesis and structure of cartilage.

A growing body of evidence supports the pain-relieving and potentially chondroprotective properties of glucosamine. Notably, glucosamine prevents degradation of cartilage proteoglycans in vitro and upregulates production of proteoglycan by chondrocytes. Glucosamine has also been shown in vitro to protect against the inhibition of proteoglycan production in chondrocytes caused by methylprednisolone.[1]

Oral administration of glucosamine and chondroitin sulfate has demonstrated positive effects on equine osteoarthritis[2,3,5], and intravenous administration of glucosamine more rapidly produces significantly higher serum and synovial fluid glucosamine levels[2,3]. During one 12-hour study period, intravenous administration in horses created maximum glucosamine levels 50x higher in the serum and over 20x higher in the synovial (joint) fluid than oral administration of glucosamine HCl[2,4].

In Australian trials of NV Glucosamine 200 Injection, veterinarians reported "Good" to "Very Good" response in 67.5% of the osteoarthritic horses treated (20mL IV daily for 5 - 10 days in most cases). Positive responses included improved action and race performance, and reduced lameness and joint effusion.

Pentosan polysulfate, as contained in Ceva's Pentosan Equine Injection, is known to stimulate cartilage healing[5], a process which utilises glucosamine for production of GAGs and HA. Combining glucosamine injections prior to and/or at the time of Pentosan Equine administration may enhance the beneficial effects on the joints.

INDICATIONS

For use in selected cases to help improve joint function in horses.

DOSAGE AND ADMINISTRATION

Adult Horses (500 kg): Administer 20 mL daily by intravenous injection for 5 - 10 days, or as directed by a veterinary surgeon.

In light of the actions of glucosamine discussed above, consideration may also be given to :

- Protective pre-treatment with Glucosamine 200 Injection prior to intra-articular corticosteroid injections;
- Combination with daily oral glucosamine/chondroitin sulfate products such as Ceva's Cosequin® Equine Powder Concentrate or Joint Guard Powder for Horses;
- Adjunctive pre- or concurrent treatment with Glucosamine 200 and Pentosan Equine injections.

PRESENTATION

100 mL sterile glass multidose vial. Product Code: E04120B

STORAGE

Store between 2˚C - 8˚C (Refrigerate. Do not freeze). Protect from light. Use all product within 3 months of first broaching vial.

AVAILABILITY

From Veterinarians (APVMA 61787)

WARNINGS

Safety in pregnant or lactating mares has not been established.

Meat Withholding Period (Horses): Nil

* Refer to product leaflet or contact Ceva for further references and information.

REFERENCES

1. Byron et al, Am J Vet Res. 2008 Sep;69(9):1123-8
2. Laverty et al, Arthritis Rheum 2005;52:181-191
3. Du et al, Biopharm Drug Dispos 2004;25:109-116
4. Meulyzer et al, Osteoarthritis Cartilage 2008 Sep;16(9):973-9
5. McIlwraith, W, AAEP Proceedings (Milne Lecture) 2005;51.

GREEN AMINO POWDER

MAXIMISE ENERGY SUPPLY TO MUSCLES

OTC

Concentrated, highly available bioenergy, amino acids, vitamins and co-factors for performance horses

COMPOSITION

Sodium, Potassium Magnesium Aspartate, Potassium Chloride, Calcium Ascorbate, B-Vitamins, Antioxidants, L-Ornithine-Alpha Ketoglutorate, L-Carnosine, L-Carnitine, Glycine, Maltodextrin, Triglycerides, Peppermint Oil, Apple Colouring

ACTIONS

Green drench is a carefully blended source of minerals, amino acids, vitamins and co-factors to supply an energy boost without excessive lactic acid build up before exercise and antioxidants to help recovery from exercise.

INDICATIONS

Amino acid and vitamin supplement for horses.

Sodium, potassium and magnesium are essential for cellular metabolism.

Vitamin C and other antioxidants are vital for soaking up the many free radicals which are produced during exercise and which are toxic to cell membranes. Vitamin C is also an immune stimulant. B-vitamins are essential for energy metabolism and B-vitamins are used at an increased rate during exercise and stress. Replacing B-vitamins immediately helps speed exercise recovery.

L-carnitine is essential for breaking down fat to supply energy, actually being the molecule which transfers fat into the mitochondra (the energy furnace of the body). Fat is a significant energy source for both working muscles and the heart muscle during exercise. Utilizing fat for energy spares muscle glycogen stores and avoids production of lactic acid. Reducing lactic acid production delays the onset of fatigue. L-carnosine works with L-carnitine in assisting muscles to work more efficiently. L-carnosine is also essential for muscle maintenance and growth. L-carnosine is involved in muscle repair after strenuous exercise.

Glycine stimulates glucose production by the liver to supply energy during exercise and is a source of D-methyl groups for use in carbohydrate metabolism. Glycine is a precursor for creatine which is involved in recycling ATP for energy supply. Glycine also stimulates release of growth hormone, which has an anabolic effect. Glucose is an immediately available energy source.

Maltodextrin is a complex carbohydrate that is released more slowly for a prolonged energy source. Triglycerides, a readily available form of fat, provides energy, which spares muscle glycogen and avoids lactic acid production.

DOSAGE AND ADMINISTRATION

Horses: Mix one satchet in 2 to 3 litres of lukewarm water.

Administer when recovery from stress or an energy boost is required.

Administer approximately 12 hours prior to exercise or after exercise or stress.

Alternatively add 50 g to feed twice daily for three days prior to strenuous exercise. Allow the horse free access to clean, palatable drinking water.

GREEN AMINO POWDER may be used with any Ceva product, and is most commonly considered for use in conjunction with VAM, COPHOS B, TRIPART, CREATINE AND/OR NATROZOL.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

300 g resealable foil sachet. Product Code: E13310B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

For General Sale

SEE ALSO

Energetic Isotonic, L-Carnitine, Mitachondral

HANDY HINT

Use of GREEN AMINO POWDER prior to endurance rides, events and longer races helps conserve energy reserves, and improves recovery rates.

Any time a hard competition event is likely to stress a horse, GREEN AMINO POWDER helps to improve energy reserves and recovery rates.

HALO® IV INJECTION

ANTI-ARTHRITIC/CHONDROPROTECTANT

S4

Hyaluronic Acid injection to reduce inflammation and repair and protect joints

COMPOSITION

Contains:
Sodium Hyaluronate 10 mg/mL

ACTIONS

Sodium hyaluronate, the sodium salt of hyaluronic acid (HA), is a non-sulphated glycosaminoglycan (GAG) which is present in many body tissues including connective tissue and skin and in synovial (joint) fluid in very high concentrations. HA provides visco-elastic properties to joint fluid and functions as a lubricant. Hyaluronic acid molecules are long chains which form a filter matrix which both supplements the visco-elastic properties of joint fluid and acts as a filter to limit movement of cells into joint fluid. Sodium hyaluronate supplementation to joints restores lubrication of the joint fluid and exerts an anti-inflammatory action by limiting movement of inflammatory cells into the joint. This effect limits joint effusion, and assists in reducing ongoing joint degeneration.

In joint disease, inflammation leads to the accumulation of inflammatory cells and degradative enzymes in the joint fluid which break down HA.

The loss of HA results in lowered viscosity of the joint fluid and further influx of inflammatory cells, leading to further cartilage damage and worsening joint disease. Supplementation of sodium hyaluronate helps to replace HA lost as a result of joint disease and thereby restores lubrication of the joint, reduces inflammatory infiltrates and minimises ongoing damage.

INDICATIONS

HALO INJECTION is easy to administer and eliminates the usual risks of intra-articular injection which include joint damage, septic arthritis and drug-induced joint reaction. The product allows for treatment of multiple joint problems throughout the body with each intravenous injection.

Due to the highly vascular nature of the equine synovial membrane it is possible that intravenous administration provides the synoviocytes with more exposure to exogenous hyaluronic acid than intra-articular administration.*

Where massive vascularisation of the synovia exists, intravenous administration may promote wider delivery of the exogenous sodium hyaluronate to synoviocytes. Intravenous administration may also be preferable for animals with chronic and/or multiple problems.

Combination of intravenous sodium hyaluronate with intra-articular corticosteroids for the treatment of joint disease may produce a more rapid response than either product administered alone. In addition, sodium hyaluronate may reduce the potential deleterious effects of corticosteroids on joint structures.

DOSAGE AND ADMINISTRATION

Intravenous Use: Halo Injection contains medium molecular weight Sodium Hyaluronate of a viscosity suitable for intravenous injection.

Dosage: *Adult Horse (450 - 500 kg):*

Administer 6 mL Halo Injection intravenously.

Repeat weekly for 3-5 injections.

WARNINGS

Radiographic examination should be undertaken prior to administration to rule out joint fractures or advanced degenerative joint disease.

When administering to competition horses, ensure that the regulations of relevant authorities are observed.

Meat Withholding Period (Horses): Nil

PRESENTATION

HALO INJECTION pack contains: 6 vials of 6 mL Sodium Hyaluronate 10 mg/mL. Product Code: E00950B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

Use the contents of the vial within 3 months of initial broaching and discard any unused portion.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 59566)

NOTES

* Howard, R. D. and Mcilwraith, C. W. 1996, Hyaluronan and its use in the treatment of equine joint disease. In Joint Disease in the Horse, Eds. C. W. McIlwraith and G. W. Trotter W. B. Saunders Philadelphia, 257-270.

HEPTAM INJECTION

AMINO ACID SUPPLEMENT

S4

Multi-amino acid supplement to enhance energy supply and minimise muscle damage

COMPOSITION

Contains:
L-Arginine hydrochloride 100 mg/mL
Magnesium aspartate 20 mg/mL
Potassium aspartate 20 mg/mL
Pyridoxine hydrochloride 20 mg/mL
L-Ornithine alphaketoglutarate 200 mg/mL
Glycine 100 mg/mL

ACTIONS

Ornithine alphaketoglutarate (OAK) stimulates growth hormone and insulin release, for a potent tissue building effect. Trials have demonstrated that OAK effectively reduces muscle loss after surgery and trauma, and increases the synthesis of muscle protein. OAK also acts as an ammonia scavenger within the body, and provides the body with glutamine (the most abundant free amino acid in muscle tissue). The level of glutamine is directly correlated to the level of muscle protein synthesis. During exercise large amounts of glutamine are lost from muscle tissue. As the provider of glutamine, OAK has a potent anti-catabolic effect (i.e. helps prevent tissue breakdown, especially muscles).

Human trials in burn and surgery patients confirm that patients supplemented with oral OAK reduced muscle loss and increased synthesis of muscle protein.

Arginine stimulates the release of growth hormone, and acts as a potent stimulus for insulin release. Arginine is the end product of OAK breakdown in the body, so OAK adds to the arginine pool available for growth hormone release.

Pyridoxine hydrochloride (Vitamin B6) functions at all levels of protein and amino acid metabolism, as well as in formation of new haemoglobin. It is essential in the process of breakdown of muscle glycogen for fuel. Requirements increase as protein requirements increase, and as energy expenditure increases.

Glycine is the precursor for creatine (essential for normal muscle function), and is also a potent stimulator of growth hormone release and subsequent muscle growth. Glycine is an important component of collagen. Aspartates are essential for maintaining the muscle ATP pool, and in limiting the amount of ammonia accumulation by increasing ammonia clearance.

INDICATIONS

Heptam is used in the routine support of horses and dogs under the stress of training and hard work.

* Arginine and OAK helps replacement and recovery of muscle tissue damaged during hard exercise.
* OAK scavenges ammonia free radicals which are produced during hard exercise.

DOSAGE AND ADMINISTRATION

Adult Horses: 20 mL by intravenous injection, twice weekly or as directed by a veterinarian, preferably within 4 - 6 hours of anticipated hard work.
Dogs: 2 mL

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

50 mL sterile multidose glass vial. Product Code: E01010B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.
Use the contents of the vial within 3 months of initial broaching and discard any unused portion.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 53173)

SEE ALSO

Taipan

HEPTENAL INJECTION

AMINO ACID/DADA COMPLEX

S4

Amino acid, DADA and glucose complex to support appetite, liver and muscle function

COMPOSITION

Each mL contains:
Di-isopropylamine dichloroacetate (DADA) 20 mg
Arginine hydrochloride 100 mg
Lysine hydrochloride 50 mg
Glucose 100 mg

ACTIONS

The constituents of Heptenal have each been shown to exhibit beneficial pharmacological effects.
DADA, the so-called Vitamin B15, has strong lipotrophic action, supports liver function, and reduces serum cholesterol. By its vasodilating action, DADA also enhances peripheral muscle blood perfusion.
Arginine and lysine are amino acids and are used in the synthesis of tissue proteins. Arginine is important for muscle metabolism, it acts as a vehicle for transport, storage and excretion of nitrogen. Arginine is also a potent stimulant for release of growth hormone, which has an anabolic effect. L-Arginine has been effective in detoxification of blood ammonia, in the improvement of blood cell production, and the promotion of wound healing. It is one of the essential amino acids for growth in young animals. Arginine infusions are used to correct alkalosis in liver disease.
L-Lysine is effective in controlling Herpes simplex virus in humans, and may be valuable in prophylaxis in outbreaks of stable virus infections.

INDICATIONS

HEPTENAL is indicated to stimulate hepatic function and appetite in the face of the physical stress of training, racing, convalescence, stimulation of recovery after viral illness or surgery, and as an adjunct to treatment of intoxication by heavy metals, nitrites and organophosphates.
Heptenal is suggested as an adjunct to treatment in cases of parenchymatous and obstruction liver dysfunction of bacterial, viral or toxic aetiology.
Heptenal provides the means for a rapid and effective return of liver function in the face of toxaemic challenge.
Heptenal is also indicated as supportive therapy in the stressed horse in hard work or training.

DOSAGE AND ADMINISTRATION

Adult Horse: 25 mL
Yearlings: 15 mL
Foals: 5 - 10 mL
Give by intramuscular injection twice weekly, or as directed by a veterinary surgeon.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E04320B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 51243)

SEE ALSO

DADA 250, AMP-5, Tridenosen, Heptam

HI-VITE C PASTE

ANTIOXIDANT AND BIOFLAVINOIDS

OTC

Vitamin C and Bioflavinoid anti-oxidant

COMPOSITION

Ascorbic acid (Vitamin C) 250 mg/mL
Hesperidin 22.2 mg/mL
Rutin 17.8 mg/mL

ACTIONS

HI-VITE C PASTE with BIOFLAVINOIDS is a supplement which provides a combination of high potency oral vitamin C and natural bioflavinoids.

Vitamin C is a natural antioxidant, and has very close interactions with Vitamins B6, B12, Zinc, Folic Acid, and Choline. This means that, for example, a deficiency of Folic Acid can create a deficiency of Vitamin C, and vice versa.

Vitamin C is a water soluble vitamin, like the B Complex group, and is rapidly absorbed and excreted, so it needs to be supplemented and available on a daily basis. Vitamin C is essential for the maintenance and repair of collagen in joint cartilage, tendons and bone, for skin health, and in the process of forming new red blood cells. It is also essential in the regeneration of Vitamin E.

Vitamin C is essential for adequate wound healing and tissue repair, supports immune function.

The bioflavinoids, Rutin & Hesperidin, have numerous functions in the body, and are closely linked to the functions of Vitamin C. They are widely used to reduce bruising in humans, and help maintain the strength and function of capillaries (the tiny blood vessels which deliver blood directly to the tissues).

Rutin and Hesperidin are also natural antioxidants which scavenge free radicals generated during exercise. They also help to support the immune function. Through their action to regulate capillary blood vessel activity, they may also help to control equine bleeders, especially in combination with Vitamin C.

INDICATIONS

Hi-Vite C with Bioflavinoids provides a combination of vitamin C and bioflavinoids which work in synergy to provide a potent antioxidant effect for improved endurance and performance, improved recovery and to reduce the effects of EIPH, or 'bleeding' in susceptible horses.

DOSAGE AND ADMINISTRATION

Adult horse: Give 5 mL orally twice weekly;
Dogs: Give 1 mL orally twice weekly;
Or as directed by your veterinarian.
Best given prior to hard work or competition days.
HI-VITE C with BIOFLAVINOIDS can safely be used with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g paste pot. Product Code: E07410B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

For General Sale

SEE ALSO

Vitamin C

NOTES

Exercise creates tissue damage! Minimising tissue damage requires potent Antioxidants such as: Vitamin E, Selenium, bioflavinoids and Vitamin C. Free radicals damage cell membranes and cause pain and discomfort in athletic animals seen after hard physical exercise. Free radical damage to tissue also significantly increases the recovery time after hard work. Accumulation of lactic acid in muscle, with associated muscle fatigue, loss of performance, and possible Tying Up, is not the only serious side effect of hard physical work. Tissue damage from hard exercise occurs all the time naturally. The added effect of the bioflavinoids to help control equine bleeders by maintaining capillary strength and integrity may be of value in some performance horses.

HI-VITE FOL B12 PASTE

FOLIC ACID AND VITAMIN B12 PASTE

OTC

Combined Folic acid and Vitamin B12 supplement

COMPOSITION

Folic acid 30 mg/mL
Cyanocobalamin (Vit B12) 750 µg/mL

ACTIONS

FOLIC ACID and VITAMIN B12 are essential B Complex vitamins, both vitally involved in many critical metabolic processes related to coenzymes for tissue formation, DNA synthesis, complete utilisation of carbohydrates and proteins for nervous tissue maintenance and energy production, and blood counts.

FOLIC ACID and VITAMIN B12 act in synergy in the formation of performance horses with a high tissue turnover rate, and in pregnancy and growth of young foals.

Clinically the first sign of deficiency is anaemia. Lack of either FOLIC ACID or VITAMIN B12 can create anaemias. As the deficiency may be indistinguishable for either of these essential vitamins, they are often grouped in one product for therapeutic and preventative use.

How Does It Work?

FOLIC ACID is an essential B group vitamin which is involved in many metabolic processes as an important coenzyme. Its most important role is in the formation of nucleic acids (DNA) from amino acids.

FOLIC ACID (along with VITAMIN B12, Vitamin B6, Vitamin C and Iron) is vital to the formation of red and white blood cells and haemoglobin, as well as for rapidly dividing cells which include gastrointestinal epitheleal cells, the growing foetus, skin and hair.

FOLIC ACID is involved in the formation of amino acids methionine and glycine, as well as the vitamine choline. VITAMIN B12 is essential to the formation of FOLIC ACID. Folate is abundant in fresh, green feeds, but processing feed rapidly destroys it. FOLIC ACID supplementation is highly recommended during pregnancy, as deficiencies in young growing animals are often associated with retardation. Cooking and storage of feeds destroys FOLIC ACID levels.

When antibiotics, particularly Sulphur drugs, are used for extended periods, the normal synthesis of FOLIC ACID in the gut will be reduced, and the requirement for FOLIC ACID are increased.

FOLIC ACID requirements are far greater in athletic performance horses where the synthesis and absorption from the gut are reduced by the stress of training and performance.

Supplements of FOLIC ACID are reported to improve antibody response in animals.

VITAMIN B12 is useful to stimulate appetite in horses, and is essential in maintenance of adequate blood counts.

DOSAGE AND ADMINISTRATION

Adult Horse: 5 mL
Dogs: 1 mL
May be administered twice weekly or as directed by a veterinary surgeon.
To administer: place the nozzle into the side of the mouth, and deposit the paste as far back over the tongue as possible.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g paste pot. Product Code: E07510B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

For General Sale

SEE ALSO

Vitamin B12, Folic Acid, Vitamin B12/Folic Acid

JOINT GUARD® POWDER

JOINT CARTILAGE PROTECTION AND REPAIR

OTC

Promoter of cartilage synthesis, repair and protection

COMPOSITION

Each 20 g scoop contains:
Glucosamine HCl 1800 mg, Sodium Chondroitin Sulfate 600 mg
Also contains: MSM, Manganese gluconate, Calcium ascorbate (Vit C), Zinc, Copper, Vitamin E

ACTIONS

*JOINT GUARD provides essential components required for joint cartilage repair and maintenance.
*JOINT GUARD aids production of normal healthy cartilage matrix and of synovial (joint) fluid.
*JOINT GUARD is a powerful therapeutic agent in cases of existing joint cartilage damage.
JOINT GUARD provides raw materials and co-factors necessary for cartilage repair and maintenance.
JOINT GUARD is designed for daily administration in the diet to help prevent cartilage degeneration by supplying all critical components on a daily basis. This is a chondroprotective (joint protective) effect. It is formulated for regular, in-feed administration.
Research trials on combinations of Glucosamine, Chondroitin, Manganese and Vitamin C report a significant synergy between these components, and a chondroprotective effect, as well as a mild anti-inflammatory effect following regular administration. The essential components in JOINT GUARD serve to both reduce cartilage degeneration, and stimulate production of healthy cartilage matrix.
Glucosamine hydrochloride - stimulates formation of both synovial (joint) fluid and the cartilage matrix,
Chondroitin sulfate - provides protection from the enzymes which break down cartilage, and is the major component in cartilage,
Manganese and Vitamin C - are essential in the pathways to manufacture cartilage,
MSM - is used during soft connective tissue synthesis e.g. in the joint capsule.

INDICATIONS

To both reduce cartilage degeneration, and stimulate production of healthy cartilage matrix.

DOSAGE AND ADMINISTRATION

Adult Horse (500 kg): Administer 1 scoop (20 g) twice daily (AM & PM) mixed in feed for a regular protective and preventive effect. By using low daily preventive doses from an early stage it is possible to avoid the expense of administering very high doses of product after any injury in an effort to achieve high blood levels rapidly.
In the event of existing cartilage damage where therapy is required, it is recommended that the daily dose of JOINT GUARD be increased (5 scoops AM & PM) for an initial period of 6 - 8 weeks to ensure rapid availability of all essential raw materials, and rapid response.
In cases where joint injury requires therapy, discuss the use of PENTOSAN EQUINE in combination with JOINT GUARD with your veterinarian. JOINT GUARD will provide a joint protective effect when used alone as a daily dose, and will also significantly improve therapy of existing joint damage when used in combination with PENTOSAN EQUINE injections to further stimulate joint repair.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

1.5 kg bucket. Product Code: E11910B
Bulk 5 kg bucket. Product Code: E11920B

STORAGE

Store below 30˚C (Room Temperature). Replace lid tightly after use.

AVAILABILITY

For General Sale (APVMA 56532)

SEE ALSO

Cosequin Equine, Joint Guard Plus

JOINT GUARD PLUS POWDER

JOINT CARTILAGE PROTECTION AND REPAIR

S4

Oral Joint Supplement with Hyaluronic Acid, Glucosamine and Chondroitin Sulfate

COMPOSITION

Each 20 g contains:
Glucosamine Hydrochloride 10,000 mg
Sodium Chondroitin Sulfate 600 mg
Sodium Hyaluronate 125 mg
Also contains: Methyl Sulfonyl Methane 3,500 mg, Manganese Gluconate 65 mg, Zinc 31.8 mg, Copper 4 mg, Calcium Ascorbate (Vit C) 116 mg, Vitamin E 40 mg.

ACTIONS

Many Australian equine oral joint supplements contain glucosamine and chondroitin sulfate, however Joint Guard Plus is unique in its combination of high levels of glucosamine with sodium hyaluronate in an oral powder form.

Glucosamine is utilised in the production of glycosaminoglycans (GAGs) which then combine with hyaluronic acid (HA) to form large proteoglycans in the matrix of cartilage. As such, glucosamine is a fundamental building block of the cartilage structure, and a growing body of evidence supports the pain-relieving and potentially chondroprotective properties of glucosamine. Joint Guard Plus contains high levels of glucosamine (500 mg/g) to counteract the limited oral bioavailability of glucosamine in horses.[1,2] The current recommended dose of oral glucosamine for horses is 10,000 mg per day.[3]

Chondroitin sulfate (CS) is another fundamental building block of joint cartilage and oral administration in combination with glucosamine has demonstrated positive effects on equine osteoarthritis.[1,2] Molecular weight markedly affects CS absorption in horses[1] and Joint Guard Plus contains a low molecular weight CS with proven, rapid oral bioavailability.[4]

Sodium hyaluronate, the sodium salt of hyaluronic acid (HA), is present in many body tissues including connective tissue and skin and in synovial (joint) fluid in very high concentrations. HA provides visco-elastic properties to joint fluid and functions as a lubricant.

In joint disease, inflammation breaks down HA which results in lowered viscosity of the joint fluid and further influx of inflammatory cells, exacerbating cartilage damage and joint disease.

Supplementation of Sodium Hyaluronate helps to replace HA lost as a result of joint disease and thereby restores lubrication of the joint, reduces inflammatory infiltrates and minimises ongoing damage.

Oral Administration - Trials (including several at Rood and Riddle Equine Hospital, Kentucky, USA) have shown benefits in the use of oral HA in horses which include positive effects on lameness incidence and severity, synovial effusion and inflammation, joint pain and improvement in pre-existing joint conditions.[5,6,7]

Circulating HA has a half-life of 2 days or less, necessitating daily supplementation to maintain long-term elevation of serum HA.[6]

Methyl sulfonyl methane (MSM), a metabolite of dimethyl sulfoxide (DMSO), has been shown to help relieve joint pain associated with osteoarthritis in humans[8] and is recommended for managing horses with osteoarthritis.[9]

INDICATIONS

Long term treatment with Joint Guard Plus may help improve joint function.

DOSAGE AND ADMINISTRATION

Adult Horse (500 kg): Administer one 20 g scoop daily.
[Each 1.5 kg bucket provides 75 daily doses of 20 g]
Add powder to moistened feed. Long-term treatment is required.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

Powder: 1.5 kg bucket. Product Code: E11510C

STORAGE

Store below 30˚C (Room Temperature) in a dry place. Replace lid tightly after use.

AVAILABILITY

By Veterinary Prescription.
Within Australia, Joint Guard Plus powder is manufactured under Permit, and available for sale only to registered veterinary surgeons.

SEE ALSO

Joint Guard, Cosequin Equine

REFERENCES

1.Du et al, Biopharm Drug Dispos 2004;25:109-116
2.Laverty et al, Arthritis Rheum 2005;52:181- 191
3.Oke et al, AAEP Proc. 2006;52:574-579
4.Eddington et al, AAEP Proc. 2001;47:326-328
5.Bergin et al, Equine Vet. J. 2006;38:375-378
6.Pierce S., 3 unpublished studies (Rood & Riddle Equine Hospital, Kentucky, USA)
7.Contipro laboratories, unpublished data
8.Usha et al, Clinical Drug Investigation 2004;24(6):353-363
9.Jones WE, J Eq Vet Sci 2000;20:160-163/217-218

JUROCYL® INJECTION

ARSENICAL SUPPLEMENt

OTC

Organic arsenic tonic to improve coat, body condition and appetite

COMPOSITION

Sodium arsanilate 50 mg/mL

ACTIONS

* JUROCYL is a safe, pentavalent organic arsenic tonic of low toxicity providing rapid response.
* JUROCYL promotes healthy skin and coat growth.
* JUROCYL stimulates appetite in picky eaters.
* JUROCYL is of value as a general tonic in anaemias, debility, stress, illness & recovery.

JUROCYL is is a pentavalent organic arsenical compound with strong tonic properties.

JUROCYL has a marked effect on the blood vessels of both skin and gastro-intestinal blood vessels.

JUROCYL is rapidly absorbed, with a prompt and visible effect. Arsenic in the organic form has long been known and respected for its tonic properties. This pentavalent form is not harmful to animals at recommended doses, and is well tolerated with no local or general reaction.

INDICATIONS

JUROCYL is indicated to stimulate appetite in poor eaters, particularly those horses suffering stress related to hard training & competition.

As a general tonic, JUROCYL is valuable in the treatment of anaemias, weakness and debility, emaciation, and skin conditions.

JUROCYL is particularly effective at promoting healthy coat growth, and encouraging seasonal changes in body coat because it improves blood flow to skin. A course of JUROCYL in August / September (Southern Hemisphere) will produce dramatic improvements in dull, lifeless coats as the season changes. For Northern Hemisphere, give during appropriate months for winter coat drop in those countries.

DOSAGE AND ADMINISTRATION

Give JUROCYL by sterile intramuscular or slow intravenous injection under veterinary supervision.

Adult Horses: Full Course: 10 mL weekly for 4 - 6 weeks.
Intensive Course: 10 mL daily for maximum 10 days.
Yearlings: Full Course: 5 mL weekly.
Intensive Course: 5 mL daily for maximum 10 days.
Foals: Full Course: 2.5 mL weekly.
Intensive Course: 2.5 mL daily for maximum 10 days.

JUROCYL is regularly used in combination with VAM to stimulate appetites and improve blood counts in stressed and recuperating horses. JUROCYL may be used with all Ceva products with the exclusion of Ferrocyl, as required.

WARNINGS

Meat Withholding Period (Horses): Do not use less than 28 DAYS before slaughter for human consumption.

Caution: Arsenic preparations should not be used continuously. A period of one month should pass before any treatment course is repeated.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E03420B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 51242)

SEE ALSO

Ferrocyl, VAM

HANDY HINT

JUROCYL is of value as a general tonic in anaemias, debility, stress, illness and recovery.

L-CARNITINE INJECTION & PASTE

AMINO ACID SUPPLEMENT

OTC

L-carnitine amino acid supplement to enhance energy production for performance

COMPOSITION

L-Carnitine 200 mg/mL

ACTIONS

* Muscle levels of L-CARNITINE determine the exercise capacity of muscles.
* L-CARNITINE forms the essential transport system for use of fats as an energy source.
* L-CARNITINE may help delay muscle fatigue and improve endurance.
* L-CARNITINE is essential for normal heart function.
* Performance horses recover more efficiently when supplemented with L-CARNITINE.

L-CARNITINE is an amino acid which helps transport fats into muscle cells. L-CARNITINE is essential in the transport of fats into muscle cells for energy production. The muscle levels of L-CARNITINE determine the exercise capacity of muscles. By using fats as energy for muscle contractions, the body is sparing glycogen and delaying the accumulation of lactic acid.

L-CARNITINE delays muscle fatigue by reducing lactic acid formation, and improves performance and endurance.

L-CARNITINE forms an essential part of the transport system which moves fatty acids into the mitachondria (cell furnaces) for energy production. It thus acts as a buffer by inhibiting lactic acid buildup in muscles, helping to delay fatigue and prevent Tying Up. Demand for L-CARNITINE in heavily exercising horses is often not met from the diet, as large amounts are consumed during exercise. Supplementing with L-CARNITINE results in improved energy supply, increased use of fatty acids as an energy source, decreased lactate buildup, and a significant increase in maximum work output.

L-CARNITINE is essential for normal heart function. Supplementing with L-CARNITINE improves both sprint and endurance performance. Performance horses can rapidly run out of glycogen as an energy source, but will rarely run out of fats. Mobilising fats as an energy source helps prevent the accumulation of lactic acid in muscles, hence delaying fatigue and possible Tying Up, and significantly improving the capacity of muscles to work harder for longer.

INDICATIONS

To improve both sprint and endurance performance.

DOSAGE AND ADMINISTRATION

Injection: *Horses.* 3 mL per 100 kg bodyweight (15 mL per average horse) by intravenous or intramuscular injection 2 - 3 times weekly.

Give final dose 4 - 6 hours before hard or fast work. Preferably use pastes for regular supplementation, and those who prefer injectables may consider the injection pre-event, to achieve high blood levels. (Sole use of paste formulations will not reduce the effect in any way). Veterinarians have reported significant improvement in horses using high doses of 20 - 25 mL twice weekly.

Dogs. 1 mL/10 kg bodyweight.

Paste: *Horses.* 10 mL. *Dogs.* 1 mL/10 kg.

Administer 2 - 3 times weekly, or as directed by a veterinary surgeon.

To administer: Place the nozzle into the side of the mouth and deposit the paste as far back over the tongue as possible, or between the teeth and cheek.

L-CARNITINE is commonly used in combination with HI-OCTANE, AMP-5, CREATINE, COPHOS B , TRIPART and PANACIN. It can be alternated with MITACHONDRAL injection as necessary.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g paste bag. Product Code: E07610B
100 mL sterile multidose glass vial. Product Code: E03520B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (Injection; APVMA 40293)

SEE ALSO

Mitachondral, AMP-5, Creatine, Green Amino Powder

NOTES

Stayers: L-CARNITINE should be supplemented regularly 2 - 3 times weekly during training & racing, with final dose 3 - 4 hours pre-event. AMP-5 given 24 hours, and again 4 - 6 hours pre-event is a useful addition to this combination.

Muscle Buffering: Use L-CARNITINE as described, in combination with COPHOS B, given 24 hours and again 4 - 6 hours pre-event, to provide significant muscle buffering capability to delay fatigue and cramping, as well as improve endurance, work output & recovery.

LACTANASE INJECTION

LACTIC ACID BUFFER

S4

Enzymic modulator to reduce lactic acid accumulation and delay muscle fatigue

COMPOSITION

Contains:
Dichloro-acetic acid 120 µg/mL
Sodium gluconate 250 mg/mL

ACTIONS

LACTANASE contains dichloroacetic acid, which is an activator of the enzyme pyruvate dehydrogenase. This enzyme plays a central role in the process of lactic acid production during hard work.

Supplementation with dichloroacetic acid (DCA) results in activation of the enzyme pyruvate dehydrogenase, leading to a reduction in the rate of lactic acid production and accumulation in muscles. Elevated plasma lactate levels result in a reduction in pH which contributes to muscle fatigue and decreased muscle performance.

Supplementation with DCA has been shown to reduce lactic acid accumulation during exercise, and produce a significant delay in muscle fatigue.

The pathogenesis of Exertional Rhabdomyolysis ("Tying Up") in horses is related to lactic acidosis during exercise, and associated low muscle pH. Sodium bicarbonate and dimethylglycine (DMG), which may help to reduce lactic acid accumulation during exercise, have been used to assist in the prevention of Tying Up in horses. Similarly, DCA (LACTANASE) results in a reduction in the rate of lactate accumulation, and a delay in the onset of muscle fatigue.

INDICATIONS

To help reduce the incidence of Tying Up by reducing the build-up of lactic acid in muscle cells.

DOSAGE AND ADMINISTRATION

Give 20 - 40 mL by intravenous injection (diluted in 1 Litre saline, or administer via catheter). Administer once weekly for 4 weeks then discontinue for 4 weeks before repeating the course.

WARNINGS

Take care to avoid leakage from the vein. LACTANASE is highly irritant if given outside the vein. Avoid accidental contact with mucous membranes or eyes (avoid accidental spillage or spray).

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E01120C

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

By Veterinary Prescription.

Within Australia, LACTANASE is a Prescription Only Remedy, manufactured under Permit, and available for sale only to registered veterinary surgeons.

SEE ALSO

L-Carnitine, Physine, Green Amino Powder, DMG, Tripart, Tridenosen, AMP-5, Untie

MANNERS® POWDER

NATURAL CALMING AGENT

OTC

A source of B-Group vitamins and Tryptophan for horses

COMPOSITION

L-Tryptophan 100 mg/g
Riboflavin (Vit B2) 16.6 mg/g
Pyridoxine HCl (Vit B6) 8.3 mg/g
Magnesium oxide 458 mg/g
Thiamine HCl (Vit B1) 84 mg/g
Pantothenate (Vit B3) 4.6 mg/g
Folic acid 4 mg/g

ACTIONS

MANNERS Powder is a mix of essential nutrients and co-factors to help calm nervous or exciteable horses in situations where performance may be reduced because of agitition and nervousness. This includes situations such as travelling, strange or unfamiliar racetracks or competition venues, unusual crowds and noise, etc. MANNERS Powder is useful as a daily supplement, either alone or in addition to TRANQUIL Paste in anticipation of stressful circumstances (e.g. competition or travel).

INDICATIONS

MANNERS Powder contains the amino acid L-Tryptophan, plus essential co-factors. Tryptophan is converted in the body to Serotonin, a major neurotransmitter (a chemical involved in transferring messages within the brain). High Serotonin levels result in a feeling of satiety, and help to induce feelings of relaxation and calmness. Tryptophan is known for its ability to calm nervous or excitable animals, so that they do not waste energy and electrolytes.

MANNERS Powder contains a number of additional co-factors important to the performance of the nervous system. Magnesium is an important part of general cellular metabolism, especially in the nervous system and also in muscles during work. High magnesium levels have been associated with calming effects in horses that may be experiencing magnesium deficiency.

Thiamine (Vitamin B1) is intimately involved in using carbohydrates for energy. It is also involved in cellular function within the nervous system and is well known as a calming supplement for nervous animals.

Riboflavin (Vit B2) helps the mitachondria in cells actually produce energy to function properly.

Pyridoxine (Vit B6) increases the ability of red blood cells to offload oxygen into muscle tissue for energy production, and is also involved in the breakdown of muscle glycogen for fuel.

Folic acid is vital to cell repair.

These effects combine to improve the mental state of nervous or excitable horses more efficiently than any of the factors used alone.

DOSAGE AND ADMINISTRATION

1 scoop provides 20 g
Mix with dampened feed
Adult horse: Give 20 g daily.
An additional 20 g dose may be given the night before an event if required.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

1.2 kg bucket. Product Code: E11010B

STORAGE

Store below 25˚C (Air Conditioning). Store in a dry place. Replace lid tightly after use.

AVAILABILITY

For General Sale

SEE ALSO

Tranquil, Vitamin B1

HANDY HINT

MANNERS POWDER is regularly used in combination with other Ceva products as required. It is especially indicated as a daily supplement to boost the efficacy of TRANQUIL Paste.

MEPIVACAINE INJECTION

LOCAL ANAESTHETIC

S4

Non-irritant local anaesthetic injection for horses

COMPOSITION

Mepivacaine hydrochloride 20 mg/mL (2% solution)

ACTIONS

MEPIVACAINE is a sterile, iso-osmotic solution indicated for all techniques of local anaesthesia. Mepivacaine is from the amide group. Anaesthesia develops rapidly, and is slightly more prolonged than with Lignocaine or Prilocaine.

Local anesthesia in horses has been associated with undue swelling at injection sites, with subsequent poor wound healing, breakdown of suture lines, and tissue sloughing of infiltrated sites.

MEPIVACAINE has low tissue reactivity and has proved an excellent anaesthetic agent for horses in field infusion, nerve blocks, epidural and spinal blocks, and intra-thecal anaesthesia.

Although MEPIVACAINE is suited to all animals, it has proven outstanding in horses.

The lack of tissue reaction following use has resulted in a significant increase in the number of wounds, particularly those of the lower limb, which are able to be sutured with confidence of primary intention wound healing.

MEPIVACAINE dramatically reduces the risk of suture necrosis following swelling.

Nerve blocks in the equine lower limb, essential to veterinary diagnostics, can be performed without subsequent unwanted tissue swelling. Spinal anaesthesia is reliable and safe with MEPIVACAINE.

MEPIVACAINE is, and has been, the local anaesthetic of choice with equine veterinarians for many years.

INDICATIONS

To induce local anaesthesia.

DOSAGE AND ADMINISTRATION

Administer by intramuscular or subcutaneous injection.

Local infiltration: Use volumes as required.

Nerve Block: 5 - 10 mL by perineural injection.

Epidural Anaesthesia: Anaesthesia of the perineal area follows injection of 8 - 10 mL at the sacro-caudal junction in approximately 5 - 10 minutes. At these volumes posterior ataxia is not expected.

WARNINGS

Meat Withholding Period (Horses): 28 Days

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E04420B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 47711)

MITACHONDRAL INJECTION

L-CARNITINE & ENDORPHIN PRECURSOR

OTC

Amino acid combination to reduce pain perception and enhance muscle endurance

COMPOSITION

L-Carnitine 200 mg/mL
L-Isoleucine 5.33 mg/mL
D-Phenylalanine 4 mg/mL

ACTIONS

*MITACHONDRAL contains L-Carnitine plus endorphin precursors.
*Use MITACHONDRAL as a pre-event treatment after regular supplementation with L-CARNITINE twice weekly.
*MITACHONDRAL reduces the perception of pain, and delays lactic acid accumulation and muscle fatigue.
MITACHONDRAL is a combination of amino acids to enhance muscle endurance and reduce pain perception.
MITACHONDRAL supplies the amino acid L-CARNITINE in the same manner as L-CARNITINE injection and paste, but has the added amino acids Phenylalanine and Isoleucine. Phenylalanine is an essential amino acid which inhibits the breakdown of opiate-like substances in the brain called encephalins. Reduced breakdown of encephalins results in increased levels of endorphins in the brain.
Endorphins are released in response to pain, and act as natural pain killers to enable the body to cope with pain. Isoleucine is also involved in the production of endorphins. An increase in brain endorphin levels can assist performance by reducing pain associated with muscle fatigue and cramping.
L-Carnitine is essential for normal heart and skeletal muscle function. During hard exercise there is extensive loss of L-Carnitine, and this often cannot be replaced adequately from the diet alone.
High levels of L-Carnitine are necessary, because L-Carnitine plays an essential role in muscle metabolism during exercise by forming the transport system which moves fatty acids into muscle cells for conversion into energy. L-Carnitine also inhibits the buildup of lactic acid in muscles, which helps delay fatigue in hard working muscles. Fatigue causes pain in muscles.
The level of L-Carnitine in muscles plays a major role in determining exercise capacity of muscle. L-Carnitine supplementation improves both sprint and endurance performance.
It increases endurance, as fat is the major energy source for endurance work. During sprinting L-Carnitine buffers lactic acid and delays fatigue. L-Carnitine supplementation increases maximum work output, and is of value especially in horses which are prone to fatigue & Tying Up. The added amino acids reduce the perception of pain which may follow muscle fatigue and Tying Up.

DOSAGE AND ADMINISTRATION

Horses. MITACHONDRAL is used most cost effectively at a dose rate of 15 - 25 mL by intramuscular injection in the 4 - 6 hours pre-event, as the added amino acids are not required regularly during training. Give one dose the day prior, and 4 - 6 hours before hard exercise for best effect.
Supplement with L-CARNITINE regularly 2 - 3 times weekly during training & racing. This may most appropriately be done using L-CARNITINE Paste.
Dogs. 2 - 5 mL
AMP-5, TRIPART and COPHOS B have all been regularly combined with MITACHONDRAL.

WARNINGS

Meat Withholding Period (Horses): Nil
Not recommended for use with TYROPOWER paste, as phenylalanine in MITACHONDRAL will inhibit the uptake of the tyrosine from TYROPOWER.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E01220B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 52848)

SEE ALSO

L-Carnitine, Tripart, Green Amino Powder

HANDY HINT

MITACHONDRAL is regularly used as a pre-event treatment after L-CARNITINE has been used for regular twice weekly supplementation.

MORAMECTIN HORSE WORMING PASTE

ANTHELMINTIC

OTC

Broad spectrum abamectin and morantel horse worm and bot paste

COMPOSITION

Abamectin 4 mg/mL
Morantel Tartrate 167 mg/mL

ACTIONS

Abamectin acts by binding selectively and with high affinity to glutamate-gated chloride channels in invertebrate nerve and muscle cells. This leads to hyperpolarisation of these cells, resulting in flaccid paralysis and death of the parasite.
Morantel is a depolarising neuromuscular blocking agent producing paralysis by causing muscle contraction.

INDICATIONS

Treatment and control of:
Tapeworms: *Anoplocephala perfoliata*
Large Strongyles: adult & larval stages of *Strongylus vulgaris*
adult & tissue stages of *S. edentatus*
adult stages of *S. equinus*
Small Strongyles: including benzimidazole resistant strains of
adult and immature *Cyathostomum* spp, *Cyliocyclus* spp
Cylicostephanus spp, *Cylicodontophorus* spp
Gyalocephalus spp
adult stages of *Triodontophorus* spp
Pin Worm: adult & immature *Oxyuris equi*
Roundworm: adult & immature *Parascaris equorum*
Hairworm: adult *Trichostrongylus axei*
Neck Threadworm: microfilariae of *Onchcerca* spp
Bots: oral & gastric stages of *Gasterophilus* spp
Lungworm: adult & immature *Dictyocaulus arnfieldi*
Intestinal Threadworm: adult *Strongyloides westeri*
Large mouthed stomach worms: adult *Habronema muscae*
Skin lesions caused by: *Habronema* spp, *Draschia* spp, cutaneous larvae (Summer Sores), and *Onchocerca* spp. microfilariae (Cutaneous Onchocerciasis).

DOSAGE AND ADMINISTRATION

Horses: The contents of one 30 g syringe are sufficient to treat one horse of 600 kg bodyweight. Doses are described in mL, corresponding to the markings on the dial-a-dose syringe.
Foals and Ponies: Administer 5 mL per 100 kg bodyweight.
Moramectin is safe for use in pregnant mares, in foals over four weeks of age, and in debilitated & convalescent animals.

WARNINGS

Meat Withholding Period (Horses): Do not use less than 28 DAYS before slaughter for human consumption.

PRESENTATION

30 g adjustable dose paste syringe. Product Code: E07030B

STORAGE

Store below 25˚C (Air Conditioning).

AVAILABILITY

Export Only product. Not available for sale in Australia.

SEE ALSO

Ammo Allwormer, Nemban

NOTES

A year round worming prevention and treatment program varies with climatic and stocking conditions, but, in general terms all horses should be wormed every 6 - 8 weeks, commencing at approximately 6 weeks of age. All horses newly introduced to a property should be wormed immediately on arrival, and kept away from regularly used paddocks or yards for several days in order to minimise environmental recontamination.

HANDY HINT

Make sure you remove manure regularly from all horse areas (paddocks and stables) to help minimise re-infestation.

NATROZOL® & NATROZOL FORTE POWDER

NATURAL MUSCLE CONDITIONER

OTC

Gamma oryzanol, chromium and creatine supplement

COMPOSITION

Natrozol:
Gamma Oryzonol 25 mg/g
Also contains:
Chromium Aminomin 0.0242 mg/g Tri-Creatine Malate 5.7 mg/g
Natrozol Forte:
Gamma Oryzonol 50 mg/g
Also contains:
Chromium Aminomin 0.0484 mg/g Tri-Creatine Malate 11.3 mg/g

ACTIONS

The compounds in NATROZOL act in synergy to produce a powerful natural tissue building effect to increase muscle size and strength, and to help athletic animals to manage the stress of training and racing, as well as to maintain appetite, interest, and blood counts during training and competition periods.
* NATROZOL is based on rice bran oil.
* NATROZOL is a blend of Gamma Oryzonol, Chromium Aminomin and Tri-Creatine Malate.
* NATROZOL is ideal for daily addition to food throughout training and competition.

INDICATIONS

NATROZOL does NOT contain any anabolic steroids, which are highly regulated substances prohibited for competition. Natrozol contains only nutritional substances.
Chromium enhances the activity of Insulin, which is vital to many body functions, including dealing with sugars in the diet and facilitating muscle growth. Clinical trials in horses and humans show chromium increases muscle weight gain and decrease body fat. Many diets are deficient in chromium, and supplementation is useful for optimum muscle development.
Creatine is an amino acid which is critically involved in the supply of energy to muscles, by converting ADP back to ATP so that it can be re-used. Supplementing with Creatine increases the readily available energy supply to muscles. High Creatine levels, and thus increased ATP supply, prevent muscles using glycogen for energy supply. This delays the production of lactic acid, with subsequent acidosis and muscle fatigue.

DOSAGE AND ADMINISTRATION

Give NATROZOL daily in food.
1 level scoop = 25 g

Performance Horses (including racing, polo, endurance):
Intense Training - 3 scoops daily, Light Work - 2 scoops daily
Show Horses:
Intense Training - 2 scoops daily, Light Work - 1 scoop daily
Commence when horses are started on training, and continue through the racing or competition campaign.
NATROZOL can only work properly when all essential nutrients are available at the correct time, in the correct amounts, to allow growth, and to allow for the vastly increased nutrient demands seen with training and racing.
VAM supplements twice weekly can provide the essential high turnover nutrients required by the athlete on a daily basis.
NATROZOL POWDER can be used safely with all other Ceva performance products.

WARNINGS

Meat Withholding Period (Horses): NOT TO BE USED in horses that may be slaughtered for human consumption.

PRESENTATION

Natrozol: 4 kg bucket. Product Code: E13410C
15 kg bucket. Product Code: E13420C
Natrozol Forte: 1.2 kg concentrate bucket. Product Code: E13510B

STORAGE

Store below 30˚C (Room Temperature). Store in a dry place. Replace lid tightly after use.

AVAILABILITY

Natrozol: For General Sale (APVMA 55619). Export Only product. Not available for sale in Australia.
Natrozol Forte: For General Sale (APVMA 63525)

HANDY HINT

VAM supplements twice weekly can provide the essential high turnover nutrients required by the athlete on a daily basis.

NEMBAN HORSE WORMING PASTE

ANTHELMINTIC

OTC

Palatable, Broad spectrum benzimidazole (BZ) group anthelmintic with a wide safety margin

COMPOSITION

Each 30 g contains:
Oxfendazole 5.55 g

ACTIONS

Nemban Paste is a palatable, broad spectrum benzimidazole (BZ) group anthelmintic designed for administration orally by syringe. It has a with a wide safely margin for use in horses including foals, yearlings, stallions and pregnant mares. Nemban Paste contains oxfendazole, which interferes with the metabolic pathways of intestinal parasites and sterilises worm eggs within 24 hours of dosing, thus reducing contamination of pastures.
All horses should be included in a regular parasite control programme with particular attention being paid to mares, foals and yearlings. Nemban Paste for Horses is ideal as an alternative wormer in a rotational worming program. Consult your veterinarian for a control programme to meet your specific needs.

INDICATIONS

Treatment and control of:
Adult and Immature forms of:

Roundworm	*Parascaris equorum*
Pinworm	*Oxyuris equi*
Large Strongyles	*Strongylus* spp
Susceptible Small Strongyles	
Large Stomach Worm	*Habronema microstoma*
Tissue Stages	*Strongylus edentatus*
Migrating Stages	*Strongylus vulgaris*

A reduction in arterial lesions of S. *vulgaris*, and a corresponding reduction in prevalence of associated colic can be expected.
It sterilises worm eggs within 24 hours of dosing.
It may be administered to sick, debilitated or pregnant animals provided normal care is taken in handling them.

DOSAGE AND ADMINISTRATION

The contents of one 30 g syringe are sufficient to treat one horse of 525 kg bodyweight (Dose rate 10 mg/kg bodyweight).

WARNINGS

Meat Withholding Period (Horses): 28 days

PRESENTATION

30 g adjustable dose paste syringe. Product Code: E07710B

STORAGE

Store below 25˚C (Air Conditioning).

AVAILABILITY

Export Only. Product not available for sale in Australia.

SEE ALSO

Moramectin, Ammo Allwormer

NOTES

A year round worming prevention and treatment program varies with climatic and stocking conditions but, in general terms, all horses should be wormed every 6 - 8 weeks, commencing at approximately 6 - 8 weeks of age. All horses newly introduced to a property should be wormed immediately on arrival. If tapeworms and/or resistant parasites require treatment, consider changing 1 or 2 treatments per year to AMMO Allwormer or MORAMECTIN.

HANDY HINT

Use AMMO Allwormer or MORAMECTIN for one year and Nemban the next year. This combination offers your horse 24 months protection.*
**Note: During Nemban rotational year a dosing with AMMO or MORAMECTIN is necessary on two occasions for bot and tapeworm control during the months of Autumn and Spring.*

NITROTAIN PASTE

SHORT ACTING ORAL ANABOLIC STEROID

S4

Potent oral short-acting steroid with rapid and predictable excretion

COMPOSITION

Each 4 g contains:
Ethyloestrenol 15 mg

ACTIONS

NITROTAIN is a potent short acting oral anabolic steroid with very low potential for adverse side effects, and a short withdrawal time (providing liver and kidney functions are normal).
NITROTAIN, with extremely high anabolic activity and very low androgenic activity, is safe for fillies and mares, as well as geldings and yearlings. (NITROTAIN has an anabolic index of 19, compared to that of Testosterone (1), Stanazol (3.8), Methandriol (7), and Nandrolone (4).
NITROTAIN is the only anabolic steroid to improve peripheral blood flow, and is thus indicated in cases of laminitis, lower leg trauma or disease. No other anabolic steroid demonstrates this ability.
NITROTAIN has rapid, predictable urinary excretion, and is absorbed from the intestine within 1 - 3 hours, regardless of food intake.
As an anabolic steroid, NITROTAIN enhances protein synthesis and diminishes urinary nitrogen excretion. It has significant anti-catabolic effects to stimulate appetite and haemopoiesis, and has a positive effect on calcium, phosphorus and potassium metabolism. NITROTAIN improves stamina, muscle mass and strength. It is safe for fillies, mares and geldings, is easy to administer as a daily oral dose, and is without virilising effects. NITROTAIN has a very rapid and predictable urinary excretion rate, providing kidney and liver function are normal.

INDICATIONS

For anti-catabolic effect to stimulate appetite and haemopoiesis, and have a positive effect on calcium, phosphorus and potassium metabolism. To improve stamina, muscle mass and strength.
In cases of laminitis, lower leg trauma or disease.

DOSAGE AND ADMINISTRATION

The recommended dose of NITROTAIN is 15 mg ethylestrenol orally, daily. That is equivalent to 4 g paste daily.
For gonadal replacement, anticatabolic states, appetite and haemopoiesis: give 4 g / 450 kg bodyweight daily.
For convalescence and repair, or rapid initiation of effect: give 8 g / 450 kg bodyweight daily.
Signs of increased musculature and appetite stimulation will be apparent within 14 days, or 1 x 60 g syringe. It is essential that adequate dietary protein, vitamins and minerals are always available.

WARNINGS

Meat Withholding Period: NOT TO BE USED in horses that may be slaughtered for human consumption.
Competition withholding period: The regulations of local racing or competition authorities in your country should be observed.

PRESENTATION

60 g multidose paste syringe. Product Code: E06530B
250 g paste pot. Product Code: E06520B
1 kg paste bucket. Product Code: E06510B

STORAGE

Store in a dry place below 25˚C (Air Conditioning). Replace lid tightly after use.

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 35910)

SEE ALSO

Natrozol, VAM

NOTES

Notes For Owners and Trainers:
1. Anabolics alone will not win races - it is essential that a performance horse, dog, or camel is in an adequate level of physical training and exercise, and has all dietary requirements, especially protein and vitamins, continually available.
2. Ethyloestrenol (NITROTAIN) is the only anabolic recorded which improves bloodflow to the capillaries, including those in the foot and lower leg.
3. NITROTAIN may be used to prepare yearlings, and to "finish off" training horses by using short courses of daily dosage for periods of 4 - 8 weeks, to effect, leading up to racing and performance. Treatment must be withdrawn prior to competition (check periods with your local vet or contact the manufacturers).
4. NITROTAIN is compatible with VAM vitamin, amino acid and mineral supplements given 2 - 3 times weekly during training and racing, and all other Ceva products. It works particularly well in conjunction with Natrozol powder or paste daily.

OMEGA 3 FATTY ACID SUPPLEMENT

OTC

Fatty Acid Supplement for Allergic Skin conditions

COMPOSITION

Each g contains:
eicosopentaenoic acid 112.5 mg
α-linolenic acid 160 mg
docosohexaenoic acid 75 mg,
dl-α-tocopheryl acetate 1 mg

ACTIONS

Pentaenoic leukotrienes (LTA5, LTB5, etc.) derived from lipoxygenase products of eicosapentaenoic acid (EPA) and others of the omega 3 series are ten to 100 times less inflammatory than the corresponding arachidonic acid products, and inhibit the elaboration of arachidonic acid products. Further, omega 3 fatty acids are preferred lipoxygenase substrates to omega 6 fatty acids, so a relatively small change in the animal's omega 3:omega 6 ratio can have a significant effect on allergic reactivity.

INDICATIONS

Allergic and inflammatory dermatological conditions in dogs.

DOSAGE AND ADMINISTRATION

Give 1 mL/7 kg bodyweight/day initially; 7 mL/day is sufficient for very large dogs. Continue this dose rate for two weeks, or until the irritation is obviously under control.

Give less often after initial treatment, depending on the individual dog. Most dogs will remain normal if administration is reduced to every second day after the first two weeks.

If the dosage has become too infrequent, or ceases and dermatitis returns, recommence with daily treatment.

Note. As with any allergic disease, treatment should be accompanied by reducing the source of allergy.

PRESENTATION

Liquid: 1 L (bottle). Product Code: E08710B

STORAGE

Store below 25°C (Air Conditioning). Protect from light and moisture. Shelf life: 36 months.

AVAILABILITY

For General Sale (APVMA 35908)

OMOGUARD® PASTE

ANTI-ULCERANT

S4

Once daily omeprazole for treatment and prevention of gastric ulcers in horses and foals

COMPOSITION

Omeprazole 370 mg/g (equivalent to 407 mg/mL)

ACTIONS

Omeprazole is a proton-pump inhibitor and suppresses gastric acid by specific inhibition of the H+/K+ ATPase enzyme system at the secretory surface of the parietal cell. Omeprazole will block gastric acid secretion irrespective of the stimulus. Maximum acid suppression occurs after 3 - 5 days of treatment.

OMOGUARD is formulated with an oil carrier base to protect the Omeprazole from acid degradation in the stomach. On passage to the alkaline intestinal environment, the Omeprazole becomes biologically available and is rapidly absorbed into the bloodstream.

INDICATIONS

Treatment and prevention of gastric ulcers in horses and foals.

By suppressing acid production, OMOGUARD creates a more neutral gastric environment which reduces ongoing damage to the gastric mucosa and also allows improved healing of existing damage.

OMOGUARD is effective in horses under a variety of management conditions, including racing or showing, in horses and foals as young as one month of age.

Clinical signs of gastric ulceration include depressed appetite or inappetence, recurrent colic, intermittent loose faeces, chronic diarrhoea, poor hair coat, poor body condition or poor performance. Signs in foals include depressed appetite or inappetence, teeth grinding, dribbling saliva, diarrhea, sternal recumbency or weakness. For accurate diagnosis direct endoscopic examination of the gastric mucosa is recommended.

DOSAGE AND ADMINISTRATION

Treatment: 4 mg/kg/day. *Adult horse (500 kg):* 5 mL orally once daily for 28 days. (1 mL per 100 kg).

Prevention: 1 mg/kg/day. *Adult horse (500 kg):* 1.25 mL orally once daily for 28 days or longer. (0.25 mL per 100 kg).

Long-term treatment at the preventative dose rate is recommended to avoid recurrence of gastric ulcers.

Dosage Guide:

Horse Bodyweight	Treatment Dose Volume	Prevention Dose Volume*+
100 kg	1.0 mL	0.3 mL
200 kg	2.0 mL	0.5 mL
300 kg	3.0 mL	0.8 mL
350 kg	3.5 mL	0.9 mL
400 kg	4.0 mL	1.0 mL
450 kg	4.5 mL	1.2 mL
500 kg	5.0 mL	1.3 mL
550 kg	5.5 mL	1.4 mL
600 kg	6.0 mL	1.5 mL
650 kg	6.5 mL	1.7 mL

*A disposable syringe may be used to measure small volumes below 2 mL more accurately

+Gastric ulcers may recur following completion of the initial treatment, unless treatment is continued at the preventative dose rate.

Set the adjustable dose syringe to the required volume and ensure the horse's mouth is empty prior to administration. Place nozzle into the side of the mouth and deposit paste as far back on the tongue as possible. Immediately raise the horse's head for a few seconds after dosing to ensure the full dose is swallowed. Monitor the horse and if any rejection or loss of medication is suspected, re-dosing is recommended.

Replace the cap after each use and store the syringe on its side.

OMOGUARD can be used concomitantly with other medications including anthelmintics, antibiotics, non-steroidal anti-inflammatories and other commonly administered veterinary preparations.

OMOGUARD PASTE

ANTI-ULCERANT

S4

Continued from previous page...

WARNINGS

When administering to competition horses, ensure that the regulations of relevant authorities are observed. OMOGUARD can be safely administered to foals from one month of age and to stallions used for breeding. Safety in pregnant or lactating mares has not been established.

Meat Withholding Period: NOT TO BE USED in horses that may be slaughtered for human consumption.

PRESENTATION

Single syringe: 30 mL (33 g) adjustable multidose syringe.
Product Code: E06610B
6-Pack: 6 x 30 mL (33 g) adjustable multidose syringe.
Product Code: E06620B
Each syringe provides 6 treatment doses or 24 prevention doses for a 500 kg horse.

STORAGE

Store in a dry place below 25˚C (Air Conditioning).

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 59496)

HANDY HINT

Omoguard is effective in horses under a variety of management conditions, including racing or showing, in horses and foals as young as one month of age.

OMOGUARD®

PASTE FOR HORSES

AUSTRALIA'S NO.1 ULCER TREATMENT*

- **APVMA Registered = Proven, Safe Product**
  Don't take the risk with unregistered products
- **Proven**
  4mg/kg dose shown to be most effective in increasing gastric pH in horses[1]
- **Highly concentrated**
  Omeprazole 370mg/g
- **Cost effective**
  6 Pack provides (for 600kg horse):
  30 days x treatment or
  120 days x prevention dose

Reference. 1. McConaghy *et al.* **Comparison of the effect of Omoguard and Gastroshield on pH in fasted horses, and effects of differing doses of the generic omeprazole paste Gastrozol. Aust Equine Vet 2011; Vol 30(1); 64-70.**
*Based on wholesaler sales data.

Ceva Animal Health Pty Ltd
PO Box 147, Glenorie NSW Australia 2157. Ph 02 9652 7000 Fax 02 9652 7001 www.ceva.com.au / info.australia@ceva.com

PENTOSAN EQUINE INJECTION

ANTI-ARTHRITIC / CHONDROPROTECTIVE

S4

Potent stimulant of cartilage synthesis repair and protection

COMPOSITION

Pentosan Polysulfate Sodium 250 mg/mL

ACTIONS

Pentosan Polysulfate Sodium (PPS)

- A semi-synthetic polysaccharide polymer based on an extract of the Beechwood plant
- A sulfated heparinoid with reduced anti-coagulant effects and enhanced anti-inflammatory, fibrinolytic, and tissue trophic effects
- Directly stimulates joint repair, rather than simply masking pain like many joint treatments

PENTOSAN EQUINE ACTIVELY REVERSES EXISTING JOINT DAMAGE AND PROTECTS AGAINST FURTHER DEGRADATION VIA 5 DIRECT ACTIONS:

1. Improves Cartilage Quality - Chondrocytes are stimulated to produce more proteoglycans to build and repair cartilage matrix.

2. Improves Joint Fluid Quality - Synovial fibroblasts are stimulated to produce increased amounts of high molecular weight hyaluronic acid resulting in more normally-viscous joint fluid for optimal lubrication and shock-absorption.

3. Inhibits Destructive Enzymes - The release of many degradative enzymes which damage cartilage and cause peri-articular inflammation are inhibited. In addition, release of an enzyme which inhibits these degradative enzymes is stimulated.

4. Provides Anti-Inflammatory Activity - Inflammation is reduced via a powerful inhibitory effect on all mediators of the arachidonic acid cascade and lysosomal catabolic enzymes. Leukocyte migration into joints is also reduced.

5. Increases Blood Supply to Joints - Strong fibrinolytic action promotes dissolution of thrombi and fibrin deposits, and mobilisation of lipids and cholesterol in synovial tissues and subchondral blood vessels. This improves blood exchange to maximise healing ability and promote normal intraosseus pressure.

INDICATIONS

An aid in the treatment of non-infectious, inflammatory joint disease in horses. In particular:

1. Osteoarthritis - especially with involvement of multiple joints
2. Osteochondrosis dissecans
3. Traumatic joint and peri-articular inflammation

DOSAGE AND ADMINISTRATION

Intramuscular Dose: 3 mg/kg Pentosan Polysulfate Sodium at 5 - 7 day intervals for 4 injections. i.e. 6 mL (1 vial) Pentosan Equine for a 500 kg horse every 5 - 7 days for 4 doses.

Intra-Articular Dose: 250 mg Pentosan Polysulfate Sodium by aseptic technique once weekly for up to 4 injections. i.e. 1 mL (1/6 vial) Pentosan Equine per joint once weekly for up to 4 doses.

PENTOSAN EQUINE has an affinity for cartilage and, for maximum effect, tissues should be exposed to the drug over an extended period, hence the 4 injections. Depending on the response of the horse, and at the discretion of the treating veterinarian, the course of 4 weekly injections can be repeated at a later stage, or single injections can be given at weekly to monthly intervals for an extended period.

In vitro studies suggest that PENTOSAN EQUINE is particularly effective, and displays synergy, with concurrent use of JOINT GUARD or COSEQUIN® EQUINE (Glucosamine and Chondroitin Sulfate supplement) to provide the essential raw materials for joint repair and maintenance.

WARNINGS

Use in horses with clotting defects, traumatic haemorrhage, infection, renal or hepatic failure, or within 48 hours of surgery.

Meat Withholding Period (Horses): 28 Days.

PRESENTATION

6 mL sterile glass vial. Product Code: E00230B
50 mL sterile multidose glass vial. Product Code: E00210B
100 mL sterile multidose glass vial. Product Code: E00220B

STORAGE

Store below 25˚C (Air Conditioning). Do not freeze. Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 51986)

PENTOSAN GOLD® INJECTION

ANTI-ARTHRITIC / CHONDROPROTECTIVE

S4

Anti-arthritic and Chondroprotective combination of PPS and Acetyl Glucosamine

COMPOSITION

Pentosan Polysulfate Sodium 125 mg/mL and
NAG (Acetyl Glucosamine) 200 mg/mL

ACTIONS

Pentosan Gold Injection for Horse contains Pentosan Polysulfate Sodium (PPS) which stimulates joint healing and repair, and reduces inflammation to help reverse the effects of osteoarthritis, as well as NAG (Acetyl Glucosamine) a newly approved and more advanced form of glucosamine that has been shown to improve glycosaminoglycan and hyaluronic acid synthesis compared to glucosamine (Shikhman AR *et al* 2009). Pentosan Gold possesses anti-inflammatory, anti-arthritic and chondroprotective properties. These beneficial effects arise from direct anti-inflammatory activity, inhibition of neutrophil migration into joints, stimulation of hyaluronic acid synthesis by synovial fibroblasts which results in a marked increase in synovial fluid volume and viscosity; stimulation of chondrocytes, and the biosynthesis of proteoglycans; and a strong fibrinolytic activity which improves the circulation in subchondral bone and periarticular structures.

Treatment using the combination of anti-arthritic agents Pentosan Polysulfate Sodium and NAG (Acetyl Glucosamine) in Pentosan Gold may result in a greater anti-inflammatory effect than either active alone (Heinecke LF *et al* 2010, Data on File), which helps reduce joint swelling and improve mobility (Data on File).

A field trial was conducted to compare the response to PPS along with Pentosan Gold (PG) in horses. Twenty one field cases, presented to veterinarians for joint disease were used. In this trial the response to PG was superior to PPS alone when treating the symptoms of osteoarthritis. The improvements in the measured variables, response time, effusion, flexion and overal response were higher for PG than for PPS indicating a greater anti-arthritic effect overall. This difference was significant for overall response, with 91% of horses having a "very good" or "good" response to PG compared to only 33% with a "very good" or "good" response for PPS. The response time was also significantly faster for PG, with horses responding within 1.7 weeks compared to 2.4 weeks for PPS. There was a tendency for a greater improvement in the flexion response with PG, with 66.6% horses showing an improvement compared to only 20% with PPS. Also there were a larger number of horses which showed reduced joint effusion for PG, 89% overall compared with 37.5% for PPS. Overall horses treated with Pentosan Gold showed greater improvements in the symptoms of joint disease than horses treated with PPS alone (McConaghy and Perkins 2012).

INDICATIONS

To aid in the treatment of non-infectious, inflammatory joint disease in horses. In particular :

1. Osteoarthritis - especially with involvement of multiple joints
2. Osteochondrosis dissecans
3. Traumatic joint and peri-articular inflammation

DOSAGE AND ADMINISTRATION

3 mg/kg Pentosan polysulfate sodium, 4.8 mg/kg Acetyl-Glucosamine (12 mL/500 kg horse) on four occasions with an interval of 5-7 days between injections.

Administer by intramuscular injection.

Dosage Guide:

Horse Bodyweight	Dose Volume
400 kg	9.6 mL
450 kg	10.8 mL
500 kg	12.0 mL
550 kg	13.2 mL
600 kg	14.4 mL

WARNINGS

Contraindications: Use in horses with clotting defects, traumatic haemorrhage, infection, liver/kidney failure or within 2 days of surgery. Should not be administered to horses within 24 hours of high stress activities or where physical injury may occur. Avoid concurrent treatment with anticoagulant drugs.

Meat Withholding Period (Horses): 28 Days.

PRESENTATION

12 mL sterile glass vial. Product Code: E04810B
6 x 12 mL sterile glass vial. Product Code: E04820B

STORAGE

Store below 25˚C (Air Conditioning). Do not freeze. Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 51986)

PENTOSAN GOLD® AND HALO® INJECTION

ANTI-ARTHRITIC / CHONDROPROTECTIVE

S4

Intravenous joint treatment with Pentosan Polysulfate, Glucosamine and Hyaluronic Acid for horses and camels

COMPOSITION

Pentosan Gold:
Pentosan Polysulfate Sodium 125 mg NAG (Acetyl Glucosamine) 200 mg/mL
Halo:
6 mg Sodium Hyaluronate10 mg/mL

ACTIONS

Active ingredients Pentosan Polysulfate, Glucosamine and Hyaluronic Acid (HA)are well documented and utilised individually in the treatment of joint disease yet their actions are closely linked. These 3 active ingredients are combined into a single intravenous injection to enhance the animal's response to treatment.

Pentosan Polysulfate produces anti-inflammatory, anti-arthritic and chondroprotective effects via 5 main actions:

1. Stimulation of cartilage cells (chondrocytes) to increase the synthesis of proteoglycans;
2. Stimulation of HA production by synovial cells to increase the volume and viscosity of synovial fluid;
3. Direct anti-inflammatory activity within and around the joint by inhibiting the arachidonic acid cascade;
4. Inhibition of neutrophil migration into joints and their associated release of degradative enzymes;
5. Fibrinolytic (anticoagulant) activity which improves blood circulation to bone and structures around the joint.

Glucosamine is utilised in the production of glycosaminoglycans (GAGs), including HA, and multiples of these complexes combine to form large proteoglycans in the matrix of cartilage. As such, glucosamine is a fundamental building block of the cartilage structure, and a growing body of evidence supports the pain-relieving and potentially chondroprotective properties of glucosamine. N-Acetyl Glucosamine actively stimulates and provides substrate for the secretion of GAGs in articular cartilage, as well as exerting an anti-inflammatory effect and inhibiting degradation of the connective tissues of the joints.[1]

Sodium Hyaluronate is the sodium salt of the GAG HA which forms proteoglycans in the matric of cartilage and provides visco-elastic and lubricating properties to joint fluid. In joint disease, inflammation breaks down HA which results in lowered viscosity of the joint fluid and further influx of inflammatory cells, exacerbating cartilage damage and joint disease. Supplementation of HA helps to restore lubrication of the joint, reduce inflammatory infiltrates and minimise ongoing damage.

Field Trials - In Australian trials of Pentosan GOLD® + Halo Injection, veterinarians reported "Good" to "Very Good" response in 81% [67 of 83] of the osteoarthritic horses treated. Positive responses included improved gait, extension, racing performance and attitude. Also reported were reductions in pain on flexion, stiffness, joint effusion and soreness after racing.

When the responses to Pentosan GOLD® + Halo were rated in comparison to the horses' previous treatments with pentosan polysulfate and/or hyaluronic acid, 86% [63 of 73] were graded as "Better" or "Much Better".

Intravenous Administration - A multidose safety study in horses has demonstrated the safety of Pentosan GOLD + Halo when administered intravenously. At normal dosage, mild induced elevation of aPTTT (activated partial thromboplastin time - measure of coagulation) was returned to baseline levels by 8 hours after each weekly injecton during the 6 week trial.[2]

INDICATIONS

For intravenous administration to aid in the treatment of non-infectious inflammatory joint disease in horses and camels.

DOSAGE AND ADMINISTRATION

For adult horse (500 kg) draw up entire contents of vials of 12 mL Pentosan Gold injection and 6 mL Halo injection into one 20 mL syringe and administer combination by intravenous injection.

3 mg/kg PPS, 4.8 mg/kg NAG and 0.12 mg/kg sodium hyaluronte (18 mL of the combination per 500 kg horse) intravenously on 4 - 6 occasions with an interval of 5 - 7 days between injections.

In light of pentosan polysulfate's known mild anticoagulant effect it is recommended to keep the animal's head elevated and apply pressure to the injection site for approximately 1 minute after administration.

Pentosan GOLD + Halo may be administered regularly and/or as a strategic preparation for racing or strenuous work. The product allows for treatment of multiple joint problems throughout the body with each intravenous injection.

Pentosan GOLD + Halo is excellent in combination with Joint Guard Plus Powder for Horses to continue the supply of glucosamine and sodium hyaluronate between injections. (Each daily 20g dose of Joint Guard Plus contains 10,000 mg glucosamine, 125 mg sodium hyaluronate, 600 mg chondroitin sulfate and 3,600 mg MSM.)

PRESENTATION

Single 12 mL vial Pentosan Gold and single 6 mL vial Halo.
Product Code: E04930C
Pack of six 12 mL vials Pentosan Gold and pack of six 6 mL vials Halo.
Product Code: E04930B

STORAGE

REFRIGERATION NOT REQUIRED. Store below 25˚C (Air Conditioning). Protect from light.

WARNINGS

Contraindicated in horses and camels with clotting defects, traumatic haemorrhage, infection, liver/kidney failure, or within 2 days of surgery.
Meat Withholding Period (Horses): 28 days

AVAILABILITY

S4 - By Veterinary Prescription. Export Only Product. Not available in Australia.

References: see next page

PENTOSAN GOLD® & HA INJECTION

ANTI-ARTHRITIC / CHONDROPROTECTIVE

S4

Intravenous joint treatment with Pentosan Polysulfate, Glucosamine and Hyaluronic Acid for horses and camels

COMPOSITION

Each mL contains:
Pentosan Polysulfate 75 mg
N-Acetyl Glucosamine 120 mg
Sodium Hyaluronate 3 mg

ACTIONS

Active ingredients Pentosan Polysulfate, Glucosamine and Hyaluronic Acid (HA)are well documented and utilised individually in the treatment of joint disease yet their actions are closely linked. The logical combination of all 3 products for single intravenous injection aims to enhance the animal's response to treatment.

Pentosan Polysulfate produces anti-inflammatory, anti-arthritic and chondroprotective effects via 5 main actions:

1. Stimulation of cartilage cells (chondrocytes) to increase the synthesis of proteoglycans;
2. Stimulation of HA production by synovial cells to increase the volume and viscosity of synovial fluid;
3. Direct anti-inflammatory activity within and around the joint by inhibiting the arachidonic acid cascade;
4. Inhibition of neutrophil migration into joints and their associated release of degradative enzymes;
5. Fibrinolytic (anticoagulant) activity which improves blood circulation to bone and structures around the joint.

Glucosamine is utilised in the production of glycosaminoglycans (GAGs), including HA, and multiples of these complexes combine to form large proteoglycans in the matrix of cartilage. As such, glucosamine is a fundamental building block of the cartilage structure, and a growing body of evidence supports the pain-relieving and potentially chondroprotective properties of glucosamine. N-Acetyl Glucosamine actively stimulates and provides substrate for the secretion of GAGs in articular cartilage, as well as exerting an anti-inflammatory effect and inhibiting degradation of the connective tissues of the joints.[1]

Sodium Hyaluronate is the sodium salt of the GAG HA which forms proteoglycans in the matric of cartilage and provides visco-elastic and lubricating properties to joint fluid. In joint disease, inflammation breaks down HA which results in lowered viscosity of the joint fluid and further influx of inflammatory cells, exacerbating cartilage damage and joint disease. Supplementation of HA helps to restore lubrication of the joint, reduce inflammatory infiltrates and minimise ongoing damage.

Placebo controlled trial: This study was conducted by Professors McIlwraith and Dart at the University of Sydney. Osteoarthritis was created in the carpal joints of 16 horses by the combination of surgical creation of a chip fracture defect in their carpal joint and treadmill exercise. Horses were treated with nine weekly injections of Pentosan Gold & HA or placebo. The horses were evaluated radiographically and for lameness during the study. Cartilage and synovial membrane was evaluated histologically. Cartilage was evaluated for Glycosaminoglycan and hydroxyproline content.

In joints with a chip, horses receiving Pentosan Gold & HA had lower radiographic scores (less degenerative changes) and lower gross pathological scores (less pathology) compared to horses receiving saline. Cartilage fibrillation score and chondrocyte cloning scores were improved in horses receiving Pentosan Gold & HA supporting a chondroprotective effect. Intimal hyperplasia was reduced in the synovial membrane overlying the chip in the horses treated with Pentosan Gold & HA supporting an anti-inflammatory effect. Overall the significant findings show that Pentosan Gold & HA resulted in anti-inflammatory and chondroprotective effects.

Field Trials - In Australian trials of Pentosan GOLD® + Halo Injection, veterinarians reported "Good" to "Very Good" response in 81% [67 of 83] of the osteoarthritic horses treated. Positive responses included improved gait, extension, racing performance and attitude. Also reported were reductions in pain on flexion, stiffness, joint effusion and soreness after racing.

When the responses to Pentosan GOLD® + Halo were rated in comparison to the horses' previous treatments with pentosan polysulfate and/or hyaluronic acid, 86% [63 of 73] were graded as "Better" or "Much Better".

Intravenous Administration - A multidose safety study in horses has demonstrated the safety of Pentosan GOLD & HA when administered intravenously. At normal dosage, mild induced elevation of aPTTT (activated partial thromboplastin time - measure of coagulation) was returned to baseline levels by 8 hours after each weekly injecton during the 6 week trial.[2]

PENTOSAN GOLD & HA INJECTION

ANTI-ARTHRITIC / CHONDROPROTECTIVE

S4

Continued from previous page...

INDICATIONS

For intravenous administration to aid in the treatment of non-infectious inflammatory joint disease in horses and camels.

DOSAGE AND ADMINISTRATION

2 - 4 mL per 100 kg bodyweight. For an adult animal of 500 kg bodyweight administer 10 - 20 mL by INTRAVENOUS injection using a 21 gauge needle (or smaller).

Each 20 mL dose contains 1,500 mg Pentosan Polysulfate (3 mg/kg) + 2,400 mg N-Acetyl Glucosamine (4.8 mg/kg) + 60 mg Sodium Hyaluronate (0.12 mg/kg).

In light of pentosan polysulfate's known mild anticoagulant effect it is recommended to keep the animal's head elevated and apply pressure to the injection site for approximately 1 minute after administration.

Pentosan GOLD & HA may be administered regularly and/or as a strategic preparation for racing or strenuous work. The product allows for treatment of multiple joint problems throughout the body with each intravenous injection.

Pentosan GOLD & HA is excellent in combination with Joint Guard Plus Powder for Horses to continue the supply of glucosamine and sodium hyaluronate between injections. (Each daily 20g dose of Joint Guard Plus contains 10,000 mg glucosamine, 125 mg sodium hyaluronate, 600 mg chondroitin sulfate and 3,600 mg MSM.)

PRESENTATION

Pack of six 20 mL vials. Product Code: E04920C

STORAGE

REFRIGERATION NOT REQUIRED. Store below 25˚C (Air Conditioning). Protect from light.

WARNINGS

Contraindicated in horses and camels with clotting defects, traumatic haemorrhage, infection, liver/kidney failure, or within 2 days of surgery.

Meat Withholding Period (Horses): 28 days

AVAILABILITY

S4 - By Veterinary Prescription. Export Only Product. Not available in Australia.

NOTES

References:

1. Rubin *et al*, *J Am Osteopath Assoc*. 2001:101:339-344
2. Colgan S., *Report on file* 2008:Nature Vet

PEPTOSYL ORAL SUSPENSION

DIETARY & NON-INFECTIOUS DIARRHOEA

OTC

Non-antibiotic liquid for the treatment of diarrhoea and gastro-intestinal disturbances

COMPOSITION

Bismuth sub-salicylate 17.5 mg/mL and sodium bentonite

ACTIONS

PEPTOSYL is a first line defence against digestive disturbances in horses, foals and dogs, with a wide safety margin, and analgesic, antiseptic and antacid actions.

Key Features & Benefits:

* PEPTOSYL contains Bismuth salicylate and sodium bentonite in an oral suspension.
* Non-antibiotic treatment for non-infectious and dietary diarrhoea.
* PEPTOSYL has gut protective, antacid, antiseptic properties, and is anti-inflammatory to control pain.

After administration, the Bismuth salicylate is converted to Bismuth carbonate and Sodium salicylate. Bismuth lines and protects the mucosal (gut lining) surface of the stomach and intestines, absorbs toxic compounds such as endotoxins, and has protective, antacid and antiseptic properties. The salicylate component is anti-inflammatory, and rapidly reduces the pain associated with gut inflammation and disturbances.

The majority of equine gastro-intestinal disturbances are not of bacterial origin, therefore PEPTOSYL is a safe, non-complicating treatment in most foals and adult horses with digestive upsets of nutritional or non-bacterial origin. Most equine gut disturbances relate to incorrect management or diet, nutrition, or stress, rather than infection.

Bentonite is a natural clay earth material with properties similar to activated charcoal. It has the ability to bind (and neutralise) bacterial endotoxins.

PEPTOSYL is indicated for the control and treatment of diarrhoea and pain associated with non-bacterial gastro-intestinal disturbance such as enteritis, gastritis, and colitis.

Being non-antibiotic, PEPTOSYL does not contribute to bacterial resistance. Oral bismuth preparations are well researched in both humans and animals, and are reported to be free of toxic side effects.

INDICATIONS

PEPTOSYL has no application in the training of normal, healthy horses, but can be used where indicated in cases of gastro-intestinal disturbance. It will not "mask" any serious veterinary problems, but will rapidly relieve the majority of gut upsets from dietary or non-infectious causes. If rapid response is not seen, seek veterinary diagnosis of the condition without delay.

DOSAGE AND ADMINISTRATION

Where possible, withhold food for 24 hours (but do not restrict nursing in foals/puppies). Administer orally.

Dosage:

Horses: 0.5 - 1 mL per kg bodyweight

Dogs: 0.25 - 0.5 mL per kg bodyweight

Repeat dose every 6 hours for 36 hours and from thence at 12 hour intervals for a further 2 to 3 days.

Do not administer for prolonged periods to animals less than 30 days old.

WARNINGS

Meat Withholding Period (Horses): DO NOT USE less than 28 days before slaughter for human consumption.

Safety in pregnant animals has not been established.

PRESENTATION

5 Litre. Product Code: E08930B

STORAGE

Store below 30˚C (Room Temperature). Protect from light. Replace lid tightly after use.

AVAILABILITY

For General Sale (APVMA 39578)

HANDY HINT

Even cases of infectious diarrhoea where antibiotics care required, will benefit from PEPTOSYL to control the diarrhoea, in combination with prescribed antibiotics.

PHYSINE INJECTION

L-CARNOSINE SUPPLEMENT

S4

L-Carnosine supplement for Muscle Buffering in Horses

COMPOSITION

L-Carnosine 50 mg/mL

ACTIONS

Carnosine is related metabolically to histamine and has immuno-potentiating properties which may be of value in immune deficiency states.

Carnosine is a physiological antioxidant able to scavenge free radicals and efficiently protect the lipid phase of cell membranes. It is a mild anti-inflammatory compound and is a prominent component in wound healing.

Carnosine is a major muscle buffer. In muscle tissue, phosphate and carnosine together provide approximately 90% of the buffering capacity. Intense exercise always involves an aenaerobic component and thus results in significant reductions in ATP, an increase in muscle lactic acid, and an increase in tissue acidity. Although the acidity can normally be buffered by the body, under high stress conditions the lactate buildup is too fast for the body to cope with. With increasing acidity comes premature muscle fatigue, with an associated decrease in performance.

INDICATIONS

Carnosine supplements provide the vital buffering capacity, as well as an antioxidant activity to improve muscle function and delay fatigue.

Carnosine improves cardiac contractability, sensitises cellular calcium channels to their activators, and protects against hydroxyl free radicals.

Carnosine supplements are indicated in athletic animals, heart failure, recovery from muscle injury, trauma, and wound healing.

DOSAGE AND ADMINISTRATION

Give 20 mL by intravenous injection daily, or as directed by a veterinarian. Best given within 4 - 6 hours of anticipated hard work.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E01520C

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

Export Only Product. Not available in Australia.

HANDY HINTS

PHYSINE works extremely well in combination with COPHOS B supplements, to provide approximately 90% of muscle buffering activity.

L-Carnosine is also incorporated in GREEN AMINO Powder, to aid both performance and recovery.

PRE-FERRIN INJECTION

HIGH POTENCY BIOAVAILABLE IRON

OTC

Highly bioavailable organic iron supplement

COMPOSITION

Iron 22 mg/mL as Ammonium Iron (111) Citrate

ACTIONS

PRE-FERRIN is a premium, fast acting, iron injection in a water base.

PRE-FERRIN provides a highly bioavailable source of Iron. Iron is essential to many body processes, particularly cell respiration and oxygen transport in haemoglobin.

Increased demand for Iron occurs in many situations, from pregnancy & lactation, haemhorrage, parasitism, and increased red blood cell turnover demanded by hard training and racing or performance. Demand for adequate iron may not be met by the normal dietary sources. This can lead to iron deficiency causing fatigue, poor endurance and exercise tolerance, pale mucous membranes, decreased growth, anaemias and poor performance.

Many racing and performance/working horses are in a borderline anaemic state due to the increased demands for iron during heavy exercise.

Organic Iron compounds such as PRE-FERRIN are much more readily and efficiently available to the horse than the older style inorganic iron compounds. In addition, PRE-FERRIN is formulated for intravenous use for more efficient absorption and faster action. Oral iron compounds are not well absorbed, and can interfere with the absorption of other essential compounds.

Being in a water base, PRE-FERRIN is non-irritant.

DOSAGE AND ADMINISTRATION

Horses: 1 mL per 45 kg (10 mL for 450 kg adult horse) by SLOW intravenous injection, twice weekly or as directed by a veterinian.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

50 mL sterile multidose glass vial. Product Code: E03610B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 41873).

SEE ALSO

Ferrocyl, Jurocyl, VAM

HANDY HINTS

What's The Difference Between PRE-FERRIN and FERROCYL?

PRE-FERRIN simply provides highly bioavailable, fast acting organic Iron, which is rapidly absorbed, whereas FERROCYL is an organic arsenic preparation which stimulates coat and skin, as well as gut blood circulation, to stimulate appetite in stressed horses. PRE-FERRIN is designed as an iron supplement specifically for performance horses. Organic iron compounds are far more efficiently absorbed and utilised than inorganic iron compounds.

Low Blood Counts: Are common in performance horses, and are most significant when maximum muscle performance is required. A loss of red blood cells can be due to internal parasites (worms), as well as the more recognised states of training & racing stress (which can reduce red blood cell lifespan from 122 down to 60-80 days). Stress also reduces the ability of the bone marrow to manufacture more red blood cells.

Red Blood Cell Counts: PRE-FERRIN is indicated whenever anaemia is evident. Many fit, athletic horses in training have a degree of anaemia. Horses which are in hard work, recovering from illness, injury or parasitism, stressed from hard training and racing, or recovering from blood loss may all respond positively to PRE-FERRIN. Provide all other essential nutrients and co-factors to improve blood production by combining with VAM paste two to three times weekly.

RACE ELECTROLYTE POWDER

BALANCED ELECTROLYTE

OTC

Electrolyte and B group vitamin supplement for horses

COMPOSITION

Sodium 92.0 g/kg,
Bicarbonate 50 g/kg,
Thiamine HCl (Vit B1) 0.83 g/kg,
Pyridoxine HCl (Vit B6) 1.06 g/kg,
Nicotinamide (Vit B3) 4.5 g/kg,
Riboflavin (Vit B2) 0.32 g/kg,
Rutin (bioflavinoid) 1.8 g/kg,
Zinc (as the proteinate) 3.3 g/kg
Folic Acid 0.82 g/kg,
Cyanocobalamin (Vit B12) 14.4 mg/kg,
Alpha-tocopherol acetate (Vit E) 3.6 g/kg
Chloride 169.1 g/kg,
Calcium 81.5 g/kg,
Potassium 80.7 g/kg,
Phosphate 113 g/kg,
Magnesium 11 g/kg,
Sulphate 44 g/kg,
Citrate 29.3 g/kg,
Inositol 8.8 g/kg,
Choline 5.1 g/kg

ACTIONS

RACE ELECTROLYTE is an electrolyte and B group vitamin supplement for horses.

RACE ELECTROLYTE has a role in maintaining electrolyte balance during heavy exercise, and in recovery after strenuous exercise. RACE ELECTROLYTE also supplies B group vitamins and co-factors required for carbohydrate metabolism and muscle function in the performance horse.

The maintenance of a proper balance of body fluids is critical to athletic animals. Dehydration (loss of body fluid balance) will rapidly reduce the capacity for training to peak fitness, and will lead, in extreme cases, to muscle damage.

Athletic horses are subjected to significantly greater stresses which can disrupt the fine physiological balance required for optimum performance, than resting horses. Horses under heavy exercise loads, or under physical stress (e.g. long truck or float trips) have higher requirements for B group vitamins, and minerals such as magnesium and zinc, which are used during cellular metabolism. These requirements can also be increased when high grain diets are fed. Bioflavinoids such as Rutin act as anti-oxidants to minimise cellular damage during exercise.

DOSAGE AND ADMINISTRATION

RACE ELECTROLYTE is best mixed dry in the feed, or it can be added to 25 litres of clean drinking water. When mixing in feed, allow the horse free access to clean fresh drinking water. Each scoop holds 30 g

Racehorses: 30 g daily (an extra 30 g can be given the night after racing)
Endurance & Performance horses: 30 g daily (extra 30 g the night after an event)
Travelling: 60 - 90 g before the start of the journey
Saline drench: 150 g in 5 litres of water, administered by stomach tube

NOTE: RACE ELECTROLYTE contains bicarbonate, therefore if used in racing or competition animals the regulations of the relevant authorities regarding medication should be observed.

RACE ELECTROLYTE is regularly used in combination with all Ceva products. It can be used successfully as the daily electrolyte supplement (until pre-competition withdrawal for bicarbonate), with ENERGETIC ISOTONIC POWDER used as the pre-race energy , antioxidant and electrolyte powder.

Return to RACE ELECTROLYTE for improved recovery after the event.

WARNINGS

NOTE: RACE ELECTROLYTE contains bicarbonate, therefore if used in racing or competition animals the regulations of the relevant authorities regarding medication should be observed.

Meat Withholding Period (Horses): Nil

PRESENTATION

16 kg bucket. Product Code: E12020B

STORAGE

Store below 25˚C (Air Conditioning). Store in dry place. Replace lid tightly after use.

AVAILABILITY

For General Sale

SEE ALSO

Energetic Isotonic, Green Amino, Untie, Electrovite Paste

RAKELIN INJECTION

SEDATIVE / CALMING AGENT

S4

Long-acting, non-sedating injectable calmative agent

COMPOSITION

Reserpine 0.5 mg/mL

ACTIONS

RAKELIN causes a rapid release of the nerve system transmitters norepinephrine and serotonin from bound stores in the brain, subjecting them to rapid destruction by the body's own enzyme, monoamine oxidase (MOA). While "bound" the stores are not available to MOA.

Norepinephrine and serotonin have potent effects on the metabolism of the brain. High levels (especially of norepinephrine) cause stimulation of cerebral activity and anxiety. Lowered levels depress cerebral activity resulting in relaxation and calmness. Norepinephrine and serotonin, on release from the bound stores, undergo rapid destruction by MOA. The net depletion of these substances creates the calming and relaxing effects of RAKELIN. These effects continue for many days after administration, because levels are restored only slowly.

RAKELIN is a very long acting tranquilliser. This is because of the long half-life of this drug in the horse. The behavioural effects take up to five days to peak and can last for up to ten days.

INDICATIONS

RAKELIN is particularly indicated where a prolonged effect to calm horses and reduce anxiety states is required, especially in the handling and management of dangerously anxious horses. Useful as an aid when unfamiliar surroundings and/or unaccustomed stress create anxiety in horses, and as a calming agent to aid in the training and education of stressed young horses.

RAKELIN produces a prolonged calming effect without sedation, drowsiness, or loss of coordination, and vicious or dangerously anxious horses will become relaxed, sociable and co-operative with continued treatment.

RAKELIN is indicated in any situation where stress/anxiety in horses is difficult to manage. Before using on horses that will be involved in competitive activities, the pre-competition withdrawal period should be ascertained (this may vary from one country to another depending on laboratory methods used for substance detection).

DOSAGE AND ADMINISTRATION

Give RAKELIN by intramuscular injection only. The dose administered must be sufficient to deplete Norepinephrine and Serotonin stores. Because the initial levels of these stores will vary from horse to horse, the veterinarian must be prepared to vary the dose to achieve optimum efficacy. A useful clinical sign is the brief period of diarrhoea due to sympathetic depresson. This period of increased bowel activity is a reliable indicator that the desired behavioural response should follow.

Adult Horses: 1 - 4 mL weekly, or as directed by a veterinary surgeon. Give by intramuscular injection only.

Some veterinarians advise giving 2 - 4 ml on alternate days until desired response is achieved.

Then repeat injections of 2 - 4 mL at 4 - 8 day intervals. This dosage regime may be altered to suit the individual animal response. Lack of response is almost always the result of underdosing.

WARNINGS

RAKELIN may produce penile relaxation. Stallions which have been treated with RAKELIN should not be used to serve mares for at least 14 days following injection.

Meat Withholding Period: NOT TO BE USED in horses that will be slaughtered for human consumption.

PRESENTATION

20 mL sterile multidose glass vial for intramuscular injection. Product Code: E05110B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 51452)

SEE ALSO

Tranquil Paste, Manners Powder

READYSERVE® ORAL LIQUID AND INJECTION

PROGESTAGEN

S4

Progestagen for Horses

COMPOSITION

Oral Liquid: Altrenogest 2.2 mg/mL in a medium chain triglyceride solution
Injection: Altrenogest 50 mg/mL

ACTIONS

Altrenogest acts similarly to the natural hormone progesterone by suppressing the normal sexual cycle and preventing signs of heat and ovulation. Mares return to heat and release natural hormones again once treatment stops. Treatment with altrenogest makes it possible to finely regulate the breeding of mares.
The newer injectable form has recently been developed. Pharmacokinetic studies have shown blood levels of altrenogest are maintained for 5 - 7 days following administration of the injection. Studies have been conducted to support supression of oestrus in cycling mares for 5 - 7 days follwing administration of Readyserve Injection.

INDICATIONS

Oral Liquid: 1. For regulation and control of the breeding cycle of mares
a) To induce ovulatory oestrus early in the breeding season in mares where some follicular activity exists
b) To suppress oestrus either during prolonged oestrus or in normally cycling mares
c) To control the ovarian cycle in breeding mares to allow the most efficient use of the stallion
2. For the maintenance of pregnancy in habitually aborting mares, or mares at risk of early embryonic death or abortion, where progesterone deficiency is thought to be the underlying cause.
Injection: For the suppresion of oestrus in normally cycling mares for 5 - 7 days. Can also be used for maintenance of pregnancy. Administer every 5 - 7 days.

DOSAGE AND ADMINISTRATION

Oral Liquid: Administer 1 mL per 50 kg bodyweight (0.044 mg/kg altrenogest) daily.
1. For regulation and control of the breeding cycle of mares
a) To induce ovulatory oestrus or to induce cyclical ovarian activity in mares with some follicular activity early in the breeding season; administer daily for 10 consecutive days
b) To suppress oestrus in normally cycling mares; administer daily for 15 consecutive days. To suppress prolonged oestrus; administer daily for 10 consecutive days.
c) To control the breeding cycle of mares to allow the most efficient use of the stallion; administer daily for 15 consecutive days.
2. For the maintenance of pregnancy in habitually aborting mares, or mares at risk of early embryonic death or abortion; administer daily from the 2nd or 3rd day after ovulation in the mated or inseminated mare, continuing daily until day 120 of gestation.
NOTE: Ultrasound scanning to confirm pregnancy is recommended on day 14 or 15 after ovulation. If the mare is not pregnant, cease READYSERVE administration and administer an injection of prostaglandin F2α to destroy any remnant luteal tissue, allowing the mare to return to oestrus and be re-mated.
Injection: 3 mL/500 kg adult mare every 5 - 7 days by intramuscular injection.

WARNINGS

Contraindications: Not for use in stallions or geldings. Contraindicated for use in mares with uterine infections.
Feed must be destroyed and not given to any other animal. Product must be added to the feed immediately prior to consumption and feed is not to be stored.
Meat Withholding Period: *Oral Liquid.* NOT TO BE USED less than 28 DAYS before slaughter for human consumption.
Injection. NOT TO BE USED in horses that will be slaughtered for human consumption.
Competition withholding period: The regulations of local racing or competition authorities in your country should be observed.
Safety Directions: Product is harmful if absorbed by skin contact or inhaled or swallowed. Avoid contact with eyes and skin. Do not inhale. When using the product wear rubber gloves. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves. Women of child bearing age should take care to avoid contact with the solution.

PRESENTATION

Oral Liquid:
1 Litre HDPE container with separate pump-top dispenser.
Product Code: E06710B
2 Litre HDPE container with separate pump-top dispenser.
Product Code: E06720B
Injection: 30 mL sterile multidose glass vial. Product Code: E06730B

STORAGE

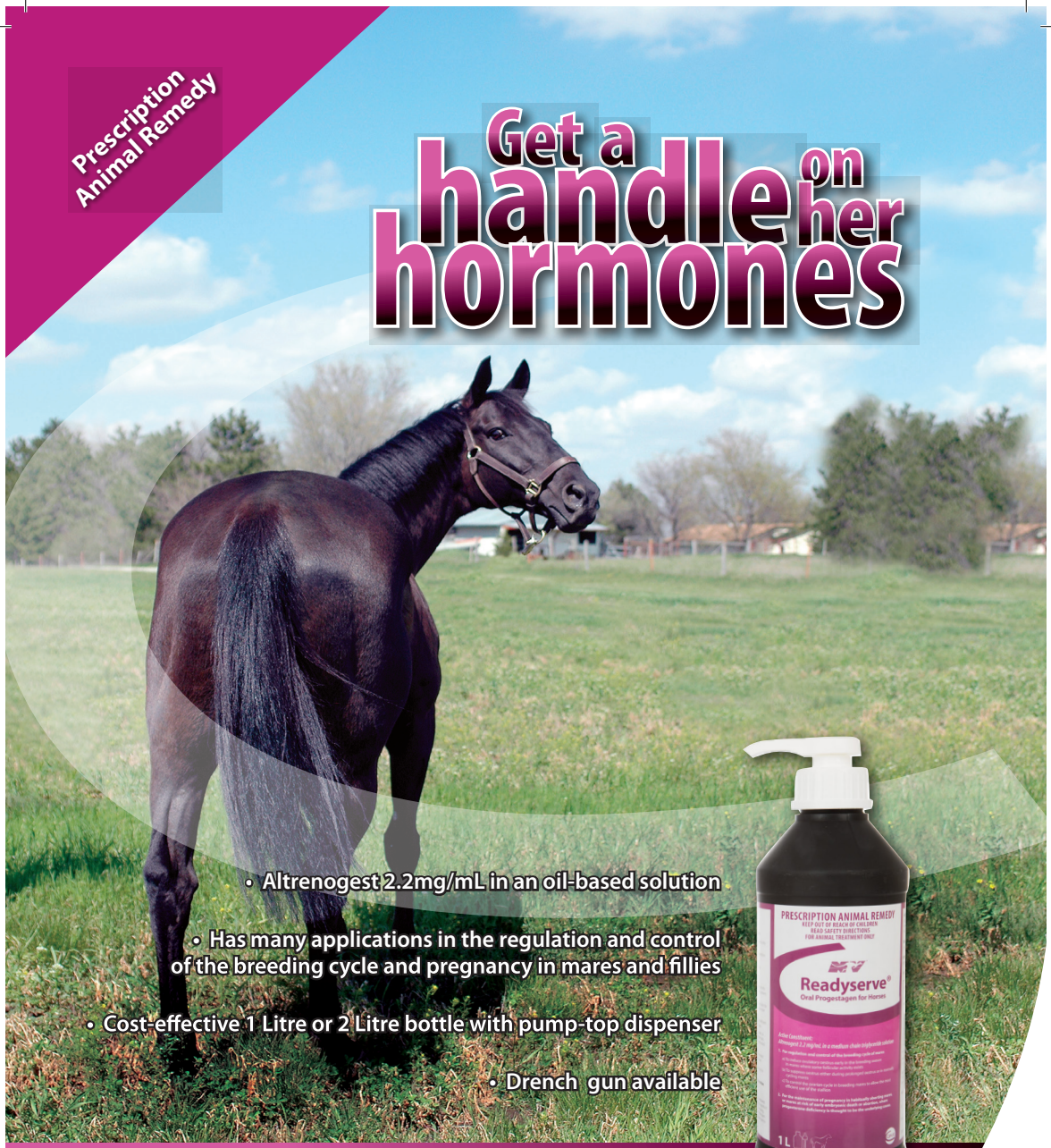
Store below 25˚C (Air Conditioning). Protect from light. Replace lid tightly after use. Store container in an upright position at all times.

AVAILABILITY

Oral Liquid: S4 – By Veterinary Prescription (APVMA 61665)
Injection: Within Australia, READYSERVE INJECTION is a Prescription Only Remedy, manufactured under Permit, and available for sale only to registered veterinary surgeons.

Prescription Animal Remedy

Get a handle on her hormones



- Altrenogest 2.2mg/mL in an oil-based solution
- Has many applications in the regulation and control of the breeding cycle and pregnancy in mares and fillies
- Cost-effective 1 Litre or 2 Litre bottle with pump-top dispenser
- Drench gun available

READYSERVE

Oral Progestagen For Horses

Ceva Animal Health Pty Ltd . Web: www.ceva.com.au
PO Box 174 Glenorie, NSW 2157 AUSTRALIA
Phone: (+61) 2 9652 7000 Fax: (+61) 2 9652 7001

RECOVERY PASTE

BCAA SUPPLEMENT

OTC

Branched-chain amino acid (BCAA) supplement to aid muscle recover after strenuous exercise

COMPOSITION

L-Valine 150 mg/g
L-Leucine 100 mg/g
L-Isoleucine 50 mg/g
Pyridoxine HCl (Vit B6) 20 mg/g
Ornithine Alpha Ketoglutarate (OAK) 20 mg/g

ACTIONS

RECOVERY Paste supplements branch chain amino acids (BCAAs), essential for muscle cell recovery after strenuous exercise.

The three BCAAs Valine, Leucine and Isoleucine make up one third of all muscle protein. During exercise increased muscle activity results in very significant losses of these three BCAAs. Supplementing with these three BCAAs immediately after exercise helps replace the muscle tissue lost during hard physical work, optimise muscle repair and maximise muscle building power.

Ornithine alpha ketoglutarate (OAK) acts as a scavenger of toxic ammonia products.

How Does It Work?

By making the essential BCAAs available immediately after hard physical work, the performance horse is able to immediately begin to repair muscle damage for rapid recovery from exertion. All physical exercise causes muscle damage.

Pyridoxine (Vitamin B6) is an essential co-factor in amino acid metabolism, and Ornithine alpha ketoglutarate (OAK) has a number of very beneficial effects, including: acting as a scavenger to clear ammonia which accumulates during exercise, stimulating release of Growth Hormone, which has a tissue building effect, stimulating Insulin release (which also has a tissue building effect), and improving the formation and production of muscle supplies of glutamine. Glutamine is essential to the body, as it is is supplied to the immune system at an increased rate during hard physical exercise. Deficiency of glutamine can depress immune ability.

This is apparent in many performance horses which appear to be very stressed from hard training and racing. OAK is an important supplement to horses in training.

Key Features and Benefits:

* RECOVERY Paste is a source of Branch Chain Amino Acids (BCAAs) plus essential co-factors.
* RECOVERY helps replacement and recovery of muscle tissue damanged during hard exercise.
* BCAAs constitute one third of all muscle tissue, and are damanged regularly during hard physical exercise.
* OAK scavenges ammonia free radicals which are produced during hard exercise.

DOSAGE AND ADMINISTRATION

Adult horse:
Intensive: 10 mL
Maintenance: 5 mL
Dog: 0.5 mL per 10 kg bodyweight
Recovery should be used daily preferably within 30 minutes after hard work.
To administer, place syringe in corner of mouth and place dose over the back of the tongue.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

250 g paste bag. Product Code: E07910B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

For General Sale

See Also

Tripart, Untie, Energetic, Cophos B, L-Carnitine, Green Amino Powder

RETREAD® POWDER

HOOF GROWTH & REPAIR

OTC

Dietary supplement to optimise hoof growth and repair

COMPOSITION

Biotin 2 mg/g,
Magnesium oxide 273.3 mg/g,
D L Methionine 333.3 mg/g,
Zinc sulfate 12.2 mg/g

ACTIONS

RETREAD is a daily oral powder which provides essential nutrients required to ensure accelerated keratin and hoof production. Whilst keratin production occurs naturally in response to injury, it can only occur if all nutrients required are available on a daily basis.

RETREAD is a convenient powder for daily addition to feed which provides important vitamins, minerals and amino acids which are often lacking in feed and natural pasture.

RETREAD contains biotin which has a role in general metabolism, and in maintaining the integrity of skin, hair and hooves. It is recognised as the rate limiting nutrient for hoof growth and hoof quality.

Methionine is a sulfur containing amino acid which is required more by keratin than any other tissue, and is often deficient when accelerated hoof growth and repair is required.

Cysteine is another important sulfur amino acid essential to hoof and hair growth and can be manufactured in the body from methionine. Methionine is also involved in detoxification processes in the liver.

Zinc has a role in general growth and metabolism, is required for normal bone and cartilage development. It is involved in maintaining the integrity of skin and mucous membranes, hair and hooves and in wound healing, and has a role in maintaining a normal healthy coat. It is often in limited supply in poor quality pasture and in grain-based feeds. Zinc supply may also be limited in the presence of high calcium rations. If supply is limited, the tissue with the highest demand for zinc will suffer first.

Magnesium is an essential mineral in a wide range of body enzyme processes, including those necessary for the manufacture of keratin.

INDICATIONS

Provision of all essential nutrients and co-factors ensure that hoof growth and maintenance is able to continue at all times. RETREAD is indicated to assist in the repair of hoof disorders such as damaged or poor quality hooves, thin or brittle walls, thin soles, easily bruised heels, and poorly formed frogs.

RETREAD has positive effects on the rate of hoof repair and regeneration and, unlike many methionine containing supplements, should not adversely affect palatability of the feed.

DOSAGE AND ADMINISTRATION

To avoid powder being sifted from the feed, mix into feed well and dampen with water, molasses or oil as suits the individual horse.

1 scoop provides 15 g.

Adult horse: 1 scoop (15 g) daily

Administer daily for at least 6 – 9 months for best results.

Improvement in hoof quality begins as a visible improvement in 2 - 5 months.

Treatment of hoof conditions should always be considered as long term, often requiring 9 months or more.

RETREAD can be safely used in combination with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

1.2 kg bucket. Product Code: E12110B

STORAGE

Store below 25˚C (Air Conditioning). Store in a dry place. Replace lid tightly after use.

AVAILABILITY

For General Sale

HANDY HINT

Palatability: Many methionine supplements deter feeding because of very poor palatability. RETREAD has good acceptance when mixed into dampened feed.

Biotin: is usually the rate limiting nutrient in hoof growth, repair and quality, however no repair will occur unless all essential nutrients are available, in the correct amounts, at the correct time.

The availability of zinc is questionable in high calcium rations. If supply is marginal, the tissue with the highest demand for zinc (usually skin, hoof and coat) will suffer first.

Plating and Shoeing: Racehorses which are plated regularly can often have constant nailing problems due to damaged hoof wall. Regular supplementation with RETREAD will optimise hoof maintenance and repair.

SALBUTE INJECTION

NONSTEROIDAL ANTI-INFLAMMATORY, ANALGESIC AND ANTIYRETIC

S4

Nonsteroidal anti-inflammatory, analgesic and antipyretic for intravenous injection

COMPOSITION

Each mL contains:
Phenylbutazone 186 mg
Sodium salicylate 50 mg

ACTIONS

Phenylbutazone and sodium salicylate are both nonsteroidal anti-inflammatory drugs (NSAIDs) with analgesic effects to relieve pain and antipyretic effects to relieve fever. The rapid action of sodium salicylate combines with the longer-term activity of phenylbutazone to present an excellent option for the treatment and management of musculoskeletal pain in horses. Phenylbutazone shows well documented and proven effectiveness in the treatment of musculoskeletal conditions in horses. Sodium salicylate is an antipyretic analgesic agent.

INDICATIONS

For the relief of musculoskeletal pain in horses. Suitable conditions for treatment include arthritis, arthrosis, bursitis, osteoarthritis, tendonitis, tenosynovitis and inflammation of the skin and soft tissues. When used as part of the management of febrile conditions, the underlying cause of the fever must also be treated.

DOSAGE AND ADMINISTRATION

For adult horses and foals initially administer 10 - 20 mL per 450 kg (1 - 2 mL/45 kg) per day by slow intravenous injection.
According to the response to initial treatment, dosage can be reduced to 5 - 10 mL per 450 kg (0.5 - 1 mL/45 kg) per day and continued for 5 - 6 days as required.

WARNINGS

Contraindications: in horses with severe hepatic, renal or cardiac disease; gastrointestinal disease, particularly gastrointestinal ulceration and haemorrhage; history of blood disorders.
Adverse reactions: to phenylbutazone and sodium salicylate are rare however gastric irritation, jaundice, limb oedema and blood dyscrasias have been reported.
If used in performance animals, the regulations of the relevant authorities regarding medication should be observed.
Meat Withholding Period (Horses): NOT TO BE USED in horses intended for human consumption.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E22020B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 64085)

SEE ALSO

Cu-Algesic, Salsprin

NOTES

If used in performance animals, the regulations of the relevant authorities regarding medication should be observed.

SALSPRIN INJECTION

ANTI-INFLAMMATORY AGENT

S4

Anti-pyretic, anti-thrombotic Non-Steroidal Anti-Inflammatory Drug (NSAID)

COMPOSITION

Sodium salicylate 250 mg/mL

ACTIONS

Sodium salicylate produces irreversible inhibition of the cyclo-oxygenase step of arachidonic acid metabolism, leading to a suppression of prostaglandin production in all metabolic systems. The duration of action allows a twelve hour dosage regime for inflammatory conditions. Thrombosis inhibition requires administration every 2 - 7 days, depending on the dose.

INDICATIONS

SALSPRIN is indicated for the control of fever and/or pain, as well as for control of inappropriate thrombosis in the horse and dog.

Salicylate has a half-life of 1 hour in the horse, and 8.6 hours in the dog, and is rapidly cleared from the body. Onset of action is approximately 10 - 15 minutes. The pharmacological effects of the salicylate are, however, considerably more prolonged than this, due to the irreversible nature of the action. This allows a 12 hour dosing regime for inflammatory conditions.

SALSPRIN will not control severe visceral pain, or sharp or excruciating pain due to severe wounds or fractures.

Musculo-skeletal: Short term treatment of mild joint and connective tissue disease, osteoarthritis, tendon and ligament sprains, and exertional myopathy.

Pyrexia: Symptomatic suppression of fever in situations where the pyrexia is inappropriate or excessive.

Thrombosis: Prevention or reduction of thrombosis when it plays a part in disease aetiology (such as pedal thrombotic conditions), early disseminated intravascular coagulation -DIC- in horses and dogs, and as an adjunct to *Dirofilaria immitis* adulticide therapy in dogs.

DOSAGE AND ADMINISTRATION

Anti-inflammatory Effect:

Horse: 35 - 45 mg/kg every 8 - 12 hours by slow intravenous injection

Dogs: 10 mg/kg every 12 hours by slow intravenous injection

Anti-thrombotic Effect:

Horse: 5 mg/kg every second day, or 20 mg/kg every 5th day

Dogs: 3 mg/kg every 6 days

WARNINGS

SALSPRIN should not be administered to animals less than 30 days old, or to animals with severe renal or hepatic disease.

SALSPRIN should not be administered less than 7 days before surgery, or to those animals known to suffer from clotting defects.

Do not use when intestinal ulceration is suspected or has been diagnosed.

Do not use concurrently with aminoglycoside antibiotics.

Administer by slow intravenous injection. Avoid extravasation as irritation and phlebitis may result.

Meat Withholding Period (Horses): 28 Days.

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E05220B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 51161)

SEE ALSO

Cu-Algesic, Salbute

TAIPAN INJECTION

AMINO ACID SUPPLEMENT

S4

Amino acid supplement to enhance energy supply and minimise muscle damage

COMPOSITION

L-Carnosine 80 mg/mL
L-ArgInine HCl 100 mg/mL
Magnesium Aspartate 20 mg/mL
Cyanocobalamin (Vit B12) 0.5 mg/mL
Nicotinamide 60 mg/mL
L-Lysine HCl 50 mg/mL
Potassium Aspartate 20 mg/mL

ACTIONS

TAIPAN is a supplement to support muscle function and recovery during training and strenuous exercise.

TAIPAN is a blend of essential co-factors to ensure that muscle metabolism is optimised, and that energy supply to muscles is adequate, to reduce the risk of lactic acidosis, muscle fatigue and Tying Up. Provision of essential co-factors and nutrients at the correct time, and in the correct amounts, reduces the risk of muscle damage and decreased performance.

How Does It Work?

Carnosine is a naturally occurring dipeptide in mammalian tissues, with antioxidant and immunopotentiating properties[1]. Carnosine is a physiological antioxidant and may be effective as an anto-inflammatory and as an aid in wound healing[1]. Carnosine is present in high concentrations in muscle tissue, in both humans[1] and horses[2]. Carnosine is the most important buffer in equine skeletal muscle[2]. Supplementing muscle buffers may have a positive effect on athletic performance[1]. Carnosine is a recommended supplement for human athletes and has been used in equine athletes. There are no registered forms of carnosine supplement available for horses and there is a demand for this product. There is no claim being made for this product other than as a carnosine supplement.

Nicotinamide is essential in increasing the use of glycogen for energy, and arginine acts as a vehicle for transport, storage and excretion of nitrogen.

Lysine is very important in muscle repair. Vitamin B12 is essential for red blood cell turnover.

Magnesium and potassium aspartates are used in the treatment of fatigue and exhaustion in humans, and of the sodium / potassium imbalance which accompanies these fatigue states.

Key Features & Benefits:

* TAIPAN is used in the treatment and prevention of Tying Up.
* TAIPAN assists muscle repair and recovery after exercise.
* TAIPAN optimises energy supply to hard working muscles.
* TAIPAN is useful to prevent fatigue and stress when travelling.

References:

1. Di Pascale 1997
2. Dunnett and Harris 1995

DOSAGE AND ADMINISTRATION

Administer by slow intravenous injection.
Horses: 5 mL per 100 kg bodyweight.
Administer once weekly or as directed by a veterinary surgeon.

WARNINGS

Meat Withholding Period (Horses): 28 Days

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E21720C

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

Export Product Only. Not for sale in Australia.

SEE ALSO

Heptam

THIAZINE 100 INJECTION

ANALGESIC / SEDATIVE / MUSCLE RELAXANT

S4

Xylazine sedative, analgesic and muscle relaxant

COMPOSITION

Xylazine 100 mg/mL (as hydrochloride)

ACTIONS

Xylazine is a non-narcotic sedative, analgesic and muscle relaxant with a rapid therapeutic response expected within 1 - 5 minutes of intravenous injection. Sedation is maintained for 1 - 2 hours, while significant levels of analgesia last 15 - 30 minutes. The duration and depth of analgesia and sedation achieved are dependent on dose and the temperament of the animal.

INDICATIONS

THIAZINE 100 has many clinical applications, including:

Radiography: To calm animals and reduce movement during radiography.

Diagnostic Procedures: During more painful &/or intricate procedures, such as endoscopy, catheterisation, peritoneal tap or ophthalmic, rectal or vaginal examinations.

Minor Surgical Procedures: To assist with procedures such as bandage changes, cast application and removal, and minor suturing and surgical procedures under local anaesthesia.

Anaesthesia: In combination with Ketamine to induce full surgical anaesthesia. Post-anaesthesia to smooth difficult recoveries.

Spasmodic Colic: THIAZINE 100 may be used as an analgesic/sedative in spasmodic (hypermotility) colic, however it is contraindicated in cases of obstructive colic or ileus as xylazine will further reduce gut motility.

DOSAGE AND ADMINISTRATION

This guide should be considered as a base from which dosage can be modified to effect, according to the depth and duration of analgesia or sedation required.

Effect	Route	Dose
Mild Sedation	Intravenous (slow)	0.25 - 0.5 mg/kg (i.e. 0.25 - 0.5 mL per 100 kg bodyweight)
Heavy Sedation	Intravenous (slow)	1.1 mg/kg (i.e. 1.1 mL per 100 kg bodyweight)
Heavy Sedation	Intramuscular	2.2 mg/kg (i.e. 2.2 mL per 100 kg bodyweight)
Spasmodic Colic	Intravenous (slow)	0.5 mg/kg (i.e. 0.5 mL per 100 kg bodyweight)

Intravenous administration induces a more rapid response, of shorter duration, than with intramuscular administration.

Any unused portion of product should be discarded 3 months after first broaching the vial.

WARNINGS

Not recommended for use in animals with cardiovascular or cardiac disease, shock, hypotension or hypertension, respiratory depression, renal or hepatic disease. It is normal for xylazine to produce cardiopulmonary depression (decreased heart and respiratory rates and cardiac output), particularly with intravenous administration. These effects are transient, but may be significant in cases of cardiopulmonary disease or shock.

Xylazine is contraindicated for intra-arterial administration, obstructive colic or ileus, mares in last trimester of pregnancy and/or concurrent administration with adrenaline.

Animals which appear sedated may react suddenly and unpredictably to noise and painful stimuli. Exercise due caution when handling xylazine-sedated horses as hypersensitivity to touch around the hindquarters may result in kicking.

Meat Withholding Period (Horses): 28 Days.

PRESENTATION

50 mL multidose glass vial for injection. Product Code: E02610B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

Any unused portion of product should be discarded 3 months after first broaching the vial.

AVAILABILITY

S4 - By Veterinary Prescription (APVMA 52905)

SEE ALSO

Detomo Vet, ACP

TILDREN INJECTION

BONE-MODIFYING AGENT

S4

Treatment for bone related lameness including Navicular Disease and Bone Spavin

COMPOSITION

Tiludronic acid 50 mg/vial (as disodium tiludronate 56.91 mg/vial) Powder and solvent for intravenous injection. Solvent is water for injection.

ACTIONS

Tiludronic acid belongs to the bisphosphonate therapeutic class, a class of products with activity on bone metabolism. The main pharmacological property of TILDREN Injection is to reduce bone resorption by inhibiting the activity of osteoclasts.

TILDREN Injection acts as a regulator of bone remodelling in all situations involving excessive bone resorption. This regulator effect is not associated with a negative effect on bone formation or bone mineralisation at the recommended therapeutic dosage.

Areas of reduced bone density are a pathological change common to most cases of Navicular Disease and Bone Spavin and are due to inappropriate resorption of bone ("osteolysis"). In double-blind, placebo-controlled clinical trials for both conditions, TILDREN treatment produced clear improvement as demonstrated by long-term reduction in lameness and progressive resumption of sporting activity.

In another double-blind, placebo-controlled clinical trial into the treatment of back pain associated with bony lesions of the vertebral column, TILDREN treatment induced a clear improvement in back flexibility, however further research is required to add this indication as a registered claim. Other studies have shown that TILDREN treatment can prevent the bone loss which usually occurs during inactivity in horses, as shown by measurements of bone density in spelling horses.

TILDREN Injection has also demonstrated anti-arthritic properties in a model of poly-arthritis in rats. In vitro data identified inhibiting effects on the secretion of enzymes which degrade cartilage matrix.

INDICATIONS

Treatment of lameness associated with bone changes such as those observed in Navicular Disease and Bone Spavin.

DOSAGE AND ADMINISTRATION

Dosage: 0.1 mg Tiludronic acid per kg bodyweight once daily for 10 days by slow intravenous injection i.e. 10mL (1 vial) of reconstituted solution per 500 kg bodyweight per day for 10 days.

Short-term side-effects such as benign muscle tremor, sweating or colic may occur in a small proportion of horses in the 1-3 hours following Tiludronic acid injection. These effects generally resolve spontaneously without specific treatment however observation of the horse for 3 hours post-injection is recommended.

The incidence of these signs is greatly reduced by slowing down the speed of administration.

WARNINGS

Due to the lack of studies on the adverse effects of Tiludronic acid on the skeleton of young animals, this product is not recommended in horses younger than 2 years of age.

Safety in pregnant or lactating mares has not been established.

Meat Withholding Period: NOT TO BE USED in horses that will be slaughtered for human consumption.

When administering to competition horses, ensure that the regulations of relevant authorities are observed.

PRESENTATION

Carton contains: 10 vials of 50 mg freeze-dried powder (Tildren) and 10 vials of 10 mL solvent (Water for injection). Product Code: 83841V

Each carton provides a 10-day treatment course for a 500 kg horse.

STORAGE

Store below 25˚C (Air Conditioning) in outer carton. Shelf life after reconstitution: As the product contains no preservatives it should be stored between 2˚C and 8˚C for no longer than 24 hours following reconstitution. Refrigerate. Do not freeze.

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 58057)

TRANQUIL PASTE

NATURAL CALMING AGENT

OTC

Natural calming agent for competition and/or travelling

COMPOSITION

Contents per g:
L-Tryptophan 260 mg/g
Also contains:
Thiamine HCl (Vit B1) 20 mg/g, Magnesium aspartate 20 mg/g
Other Ingredients:
Riboflavin (Vit B2), Nicotinamide (Vit B3), Pyridoxine HCl(Vit B6), Calcium ascorbate (Vit C), Folic acid, Potassium aspartate, Chromium aminomin

ACTIONS

TRANQUIL Paste is a blend of amino acids, vitamins and minerals which combine to produce a powerful natural calming effect.
TRANQUIL is a natural alternative to chemical calming agents.
TRANQUIL Paste is a unique formulation of all essential nutrients and co-factors necessary to calm nervous or excitable horses in situations where athletic performance may be reduced because of increased agitation and nervousness. This includes situations such as travelling, strange or unfamiliar racetracks or competition venues, unusual crowds and noise, etc.
How Does It Work?
TRANQUIL Paste contains the amino acid L-Tryptophan, plus all of its essential co-factors. Tryptophan is converted in the body to serotonin, a major neurotransmitter (a chemical involved in transferring messages within the brain). High serotonin levels result in a feeling of satiety, and help to induce feelings of relaxation and calmness. Tryptophan is known for its ability to calm nervous or excitable animals, so that they do not waste energy and electrolytes.
TRANQUIL Paste contains a number of additional co-factors to improve energy supply during exercise, and thus exercise performance. Potassium & Magnesium aspartates improve endurance and delay muscle fatigue and cramping. Thiamine (Vitamin B1) is intimately involved in using carbohydrates for energy. Riboflavin (Vit B2) helps the mitachondria in cells actually produce energy for muscle contraction. Nicotinamide (Vit B3) is involved in increasing the availability of glycogen as a source of energy, and the breakdown of fatty acids. Pyridoxine (Vit B6) increases the ability of red blood cells to offload oxygen into muscle tissue for energy production, and is also involved in the breakdown of muscle glycogen for fuel. Folic acid is vital to muscle repair, and Vitamin C is a potent antioxidant to reduce muscle damage during hard exercise.
These effects combine to improve the mental state of nervous or excitable horses, and thus improve exercise performance.

DOSAGE AND ADMINISTRATION

Give 30 g (one syringe) TRANQUIL daily, preferebly within 4 hours of exercise or travel, or as directed by veterinary surgeon.
TRANQUIL paste is regularly used in combination with other Ceva products as required.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

30 g adjustable dose paste syringe. Product Code: E13810B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

For General Sale (APVMA 60846).

SEE ALSO

Manners Powder, Vitamin B1

HANDY HINT

TRANQUIL is regularly used in combination with other Ceva products as required. It is especially indicated for use in conjunction with Manners Powder.

TRANSAM INJECTION

INJECTABLE MSM SUPPLEMENT

S4

Dimethylsulphone ($DMSO_2$ - also known as MSM) for use in selected cases of musculo-skeletal disorders

COMPOSITION

Dimethyl Sulfone 200 mg/mL

ACTIONS

Methylsulfonylmethane (MSM) is a naturally occurring source of bioavailable nutritional sulfur for horses, to aid in the prevention of sulfur deficiency in the diet.

DMSO has been used to successfully reduce inflammation and swelling in joints and soft tissues after trauma or injury for many years. DMSO is rapidly distributed and metabolised in the body, but, interestingly, the therapeutic effect of DMSO has consistently appeared to last longer than could be explained. A direct metabolite of DMSO – methylsulfonylmethane (MSM) has since been found to provide the longer term benefits.

What Does It Do?

As the active metabolite of Dimethylsulfoxide (DMSO), MSM is free from the adverse side effects and withdrawal times seen with DMSO.

DMSO is an anti-inflammatory agent and free radical scavenger.

Sulfur is an essential bonding element in hooves, skin, hair and connective tissue. It also occurs in certain enzymes, hormones and immunoglobulins (antibodies).

Levels of MSM are low, or altogether deficient in many processed feeds such as cereal or pelleted food, and even sun-dried hays.

The anti-inflammatory and analgesic effects of methylsulfonylmethane are recognised, and the ability of added sulphur to assist in the nutritional management of foot and hoof conditions in horses is also well recognised.

INDICATIONS

Anti-inflammatory and analgesic dimethylsulphone ($DMSO_2$ - also known as MSM) for use in selected cases of musculo-skeletal disorders.

DOSAGE AND ADMINISTRATION

Administer by intravenous injection.

Adult horse: 20 mL daily or as directed by a veterinary surgeon.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E01720B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

Use the contents of the vial within 1 month of initial broaching, and discard any unused portion.

AVAILABILITY

From Veterinarians (APVMA 59545)

SEE ALSO

Mitachondral

TRIDENOSEN INJECTION

VASODILATOR TO AID IN PREVENTION OF TYING UP

S4

Vasodilator to improve blood flow and minimise tying up / cramping, fatigue and muscle damage in horses and dogs

COMPOSITION

Each mL contains:
Adenosine triphosphate (ATP) 2 mg
Nicotinic acid 20 mg
Magnesium aspartate 20 mg
Potassium aspartate 20 mg
Di-isopropylamine dichloroacetate (DADA) 50 mg
Sodium selenite 500 µg

ACTIONS

TRIDENOSEN is a potent dilator of the small arteries of the muscles of the body and heart. Adenosine, Nicotinic acid and DADA all dilate blood vessels that supply muscles. The reduction in vascular resistance produced by these agents leads to an increase in ease of blood flow, oxygen supply, and muscle perfusion. This increased blood flow leads to increased CO_2 and lactic acid removal, reducing fatigue and muscle damage during maximal work periods. Experimental studies show that the blood supply to heart muscle is increased by more than 100% by infusion with adenosine compounds; and to skeletal muscle by 92%.

Magnesium and potassium aspartates are used in the treatment of fatigue and exhaustion in humans, and of the sodium / potassium imbalance which accompanies these fatigue states.

ATP is the essential chemical for muscle contraction, releasing energy when it is broken down to ADP. The aspartates improve endurance by decreasing blood lactate and ammonia, thus delaying fatigue.

Selenium and potassium aspartates are potent anti-oxidants, and help to limit muscle damage or azoturia incurred as a result of strenuous work. TRIDENOSEN has been shown in clinical trials to reduce post-exercise CPK and SGOT levels, indicating that less muscle cell damage has been incurred.

INDICATIONS

TRIDENOSEN should be used to prevent cramping and Tying Up (Rhabdomyolysis or azoturia). It can be successfully used to counter fatigue states, and as an aid to recovery after hard work.

TRIDENOSEN is of value in cases of "heart strain" as evidenced by ECG "T" wave changes.

DOSAGE AND ADMINISTRATION

Horse: Adult: 15 - 25 mL once or twice weekly
Dogs: 2 - 5 mL once or twice weekly
Administer TRIDENOSEN by intramuscular injection, or slow intravenous injection under the direction of a veterinary surgeon.

WARNINGS

Do not administer vasodilating agents to animals in shock.
Meat Withholding Period (Horses): 28 Days

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E05320B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

S4 – By Veterinary Prescription (APVMA 51223)

SEE ALSO

AMP-5, Tripart, DADA 250, Untie, L-Carnitine

TRIPART INJECTION & PASTE

OPTIMISE MUSCLE METABOLISM & REDUCE TYING UP

OTC

Supplement to optimise muscle function and recovery and to minimise Tying-Up

COMPOSITION

Potassium aspartate 20 mg/mL	Magnesium aspartate 20 mg/mL
Nicotinamide (Vit B3) 60 mg/mL	L-arginine HCl 100 mg/mL
Cyanocobalamin (Vit B12) 500 µg/mL	L-lysine HCl 50 mg/mL
Selenium (as sodium selenate) 1 mg/mL	

Paste also contains:

Adenosine triphosphate 2 mg/mL	Uridine triphosphate 1 mg/mL

ACTIONS

TRIPART is a supplement to support muscle function and recovery during training and strenuous exercise.

TRIPART is a blend of essential co-factors to ensure that muscle metabolism is optimised, and that energy supply to muscles is adequate, to reduce the risk of lactic acidosis, muscle fatigue and Tying Up. Provision of essential co-factors and nutrients at the correct time, and in the correct amounts, reduces the risk of muscle damage and decreased performance.

How Does It Work?

Magnesium and potassium aspartates are used in the treatment of fatigue and exhaustion in humans, and of the sodium / potassium imbalance which accompanies these fatigue states. The aspartates improve endurance by decreasing blood lactate and ammonia, thus delaying fatigue.

Vitamin B3 is essential in increasing the use of glycogen for energy, and arginine acts as a vehicle for transport, storage and excretion of nitrogen.

Lysine is very important in muscle repair.

Selenium is an essential element of the enzyme which helps remove the free radicals produced during severe exercise. Selenium and potassium aspartates are potent anti-oxidants, and help to limit muscle damage or azoturia incurred as a result of strenuous work.

Vitamin B12 is essential for red blood cell turnover.

ATP (in the Paste only) is the essential chemical for muscle contraction, releasing energy when it is broken down to ADP.

Key Features & Benefits:

* TRIPART assists muscle repair and recovery after exercise.
* TRIPART reduces the risk of cramping.
* TRIPART optimises energy supply to hard working muscles.
* TRIPART is useful to prevent fatigue and stress when travelling horses long distances.

DOSAGE AND ADMINISTRATION

Injection:

Horses: Give 5 mL per 100 kg bodyweight

Dogs: Give 0.5 mL per 10 kg bodyweight

Give once weekly or as directed by a veterinary surgeon. TRIPART is a sterile injection for intramuscular or subcutaneous administration.

Paste:

Adult Horse: 10 - 15 mL

Dogs: 1 mL per 10 kg

May be administered daily, or as directed by a veterinary surgeon.

To administer: Place nozzle into the side of the mouth and deposit the paste as far back over the tongue as possible, or between the teeth and cheek.

TRIPART is regularly used before strenuous exercise for muscle energy support in combination with products such as AMP-5, L-CARNITINE or MITACHONDRAL, and CREATINE or UNTIE, depending on requirements.

TRIPART is also efficiently used in combination with RECOVERY Paste, ENERGETIC and COPHOS B to significantly improve recovery.

WARNINGS

Meat Withholding Period (Horses): 28 days

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E01820B

250 g paste bag. Product Code: E13930B

STORAGE

Store below 25˚C (Air Conditioning).

AVAILABILITY

For General Sale ([Injection] APVMA 50237).

SEE ALSO

Energetic, Cophos B, L-Carnitine, Green Amino, Recovery

HANDY HINT

TYING UP

TRIPART can be used to help delay Tying Up by giving a dose 48 hours, 24 hours, and again 4 - 6 hours pre-event. This will significantly improve muscle recovery after hard work, especially when combined with AMP-5, ENERGETIC, and RECOVERY post-event.

TYROPOWER PASTE

NATURAL STIMULANT

OTC

Tyrosine and co-factors to improve the attitude and concentration of performance animals

COMPOSITION

L-Tyrosine 400 mg/g
Nicotinamide (Vitamin B3) 30 mg/g
Zinc sulphate 20 mg/g
Chromium picolinate 332 µg/g
Pyridoxine HCl (Vit B6) 10 mg/g

ACTIONS

TYROPOWER Paste is a unique formulation of the amino acid, Tyrosine, with essential nutrients and co-factors necessary to stimulate the mental state and improve mood and concentration of performance animals.

How Does It Work?

Tyrosine is a precursor in the formation of Adrenaline and Noradrenaline. These compounds stimulate various body systems. Tyrosine is converted into noradrenaline, which results in an improvement in mood and concentration.

Tyrosine has been used for many years to treat anxiety and depression. Tyrosine plays an important role in the functioning of the adrenal gland, which is critically important in dealing with stress. Thus Tyrosine has an important role in reducing the risk, and effects of, overtraining or training stress. Tyrosine also stimulates the release of growth hormone, which increases muscle mass and reduces body fat. Various essential co-factors for tyrosine are included in TYROPOWER. These include Vitamins B3 and B6, and zinc. Vitamin B3 is also essential in the conversion of glycogen for energy, and the breakdown of fatty acids. Vitamin B6 improves the ability of red blood cells to offload oxygen into muscle tissue for energy production, and is involved in the breakdown of muscle glycogen for fuel. Zinc improves glucose uptake by cells, and improves endurance and muscle strength.

These effects combine to improve available energy supply, and improve the mental state.

Key Features and Benefits:

* Tyrosine improves mood and concentration by stimulating production of noradrenaline.
* Tyrosine stimulates the adrenal gland, improving the response to stress.
* TYROPOWER Paste stimulates the mental state and improves mood.
* TYROPOWER keeps their mind on the job!

DOSAGE AND ADMINISTRATION

Horses: Give 10 - 15 mL TYROPOWER Paste daily, preferably within 3 hours of strenuous exercise.

Dogs: Give 1 mL per 10 kg bodyweight of TYROPOWER Paste daily, preferably within 3 hours of strenuous exercise.

To administer: Place the nozzle into the side of the mouth and deposit the paste as far back over the tongue as possible.

Depending on the problem being addressed, TYROPOWER may be combined with other Ceva products (Please see notice under warnings).

WARNINGS

It is preferable not to use TYROPOWER with MITACHONDRAL.

Meat Withholding Period (Horses): Nil

PRESENTATION

30 mL adjustable dose paste syringe. Product Code: E14010B

STORAGE

Store below 30˚C (Room Temperature).

AVAILABILITY

Export Product Only. Not for sale in Australia.

SEE ALSO

Tranquil, Manners

HANDY HINT

Horses suspected of having current pain may respond to MITACHONDRAL instead.

UNTIE POWDER

HELP PREVENT & TREAT TYING UP

OTC

Feed supplement to minimise muscle damage and Tying-Up

COMPOSITION

Each 140 g dose contains:

Vitamin E 1000 mg	Thiamine (Vitamin B1) 200 mg
Riboflavin 25 mg	Potassium 15.3 g
Chloride 13.8 g	Calcium 12.5 g
Magnesium 14 g	Selenium 1 mg

ACTIONS

UNTIE aids in the prevention of all stages of the metabolic process of Exertional Myopathy, or Tying Up in horses. UNTIE provides all of the essential electrolytes, nutrients and co-factors to ensure maximal oxygen supply to hard working muscles, as well as maximum endurance.

Thiamine (Vitamin B1) plays a vital role in conversion of the muscle waste products lactic and pyruvic acids. A deficiency of B1 leads to accumulation of these acids with subsequent muscle soreness, weakness, weight loss, irritability and nervousness. Although B1 levels in quality grain diets are usually adequate, they can be low in over mature grains and hay, and the demand for B1 in working horses is much higher than normal.

Alpha tocopherol (Vitamin E) is necessary for integrity of cell membrane tissues, and is an essential co-factor in the synthesis of Vitamin C. Deficiency of Vitamin E is characterised by muscle weakness and wasting, high SGOT levels in serum, and ECG changes.

Potassium chloride: cereal grains and feeds frequently have inadequate levels of potassium, and racing or hard working horses with low potassium levels show reduced appetite, easy exhaustion, over excitability, and disturbances in tissue fluid balance.

Key Features & Benefits:

* UNTIE contains all essential nutrients and co-factors to help prevent Tying Up.
* UNTIE is fed as a daily supplement in feed.
* UNTIE is of particular value in endurance events.

INDICATIONS

To help prevent all stages of tying up in horses.

DOSAGE AND ADMINISTRATION

Mix UNTIE through food daily. Ideally split the daily dose between morning and evening feeds i.e. one scoop morning and night.

Give 2 scoops (70 g per scoop) per 400 kg bodyweight per day.

UNTIE can be mixed in dampened feed, but is not soluble in water.

UNTIE is safely used with all Ceva dietary or performance supplements, especially ENERGETIC, TRIPART, AMP-5, L-CARNITINE, Hi-OCTANE, MITACHONDRAL.

WARNINGS

Meat Withholding Period (Horses): 28 days

PRESENTATION

4 kg bucket. Product Code: E12720B

STORAGE

Store below 30˚C (Room Temperature). Store in a dry place. Replace lid tightly after use.

AVAILABILITY

For General Sale (APVMA 45984)

SEE ALSO

Tripart, L-Carnitine, CopHos B, Energetic Powder, Green Amino, AMP-5

HANDY HINT

UNTIE helps prevent Tying Up and replaces essential electrolytes in sweat, so is of value in those horses which are very excitable on race or competition days, in combination with TRANQUIL Paste, given 24 hours, and again 4 - 6 hours pre-event.

VAM® INJECTION & PASTE

OTC

Supplement to replace high-turnover Vitamins, Amino acids and Minerals

COMPOSITION

Cyanocobalamin (Vitamin B12) 150 µg/mL, Glycine 20 mg/mL, Ferric ammonium citrate 15 mg/mL, L-Lysine HCl 20 mg/mL, Riboflavin (Vitamin B2) 10 mg/mL, DL Methionine 20 mg/mL, Pyridoxine HCl (Vitamin B6) 10 mg/mL, Inositol 10 mg/mL, Nicotinamide 100 mg/mL, Biotin 10 µg/mL, D Panthenol (Vitamin B5) 15 mg/mL, Choline bitartrate 10 mg/mL, Cobalt sulfate 240 µg/mL, Copper sulfate 70 µg/mL

ACTIONS

VAM is a supplementary source of all of the essential nutritional factors required in large amounts by performance animals. VAM is formulated for use as a routine training aid, and is commonly used to both treat and prevent vitamin and mineral deficiencies from dietary deficiencies, athletic stress, parasitism and illness.

The daily requirements of all of these essential nutrients and co-factors are significantly higher for an animal athlete, due to the much higher rates of tissue formation and destruction which occur during training and racing.

How Does It Work?

Nutrition is about building and maintaining a better body. VAM provides the essential high-turnover nutritional supplements which are in very high demand.

Vitamins and Minerals: are essential components of structures and metabolic processes in the body. They must essentially be fed every day in the correct amounts. With regular, consistent training, the body gradually develops and maintains itself, as long as vitamins (and minerals) are not limited.

Amino Acids: are the basic building blocks of proteins. Over 50% of the body weight is protein. All bodily functions are controlled by thousands of different enzymes, all of which are proteins. Haemoglobin in blood, genes and brain cells, and muscle tissue are all proteins. Amino acids have a regulatory function to maintain nervous and immune systems. Demand for certain amino acids are increased during athletic training and performance.

Key Features & Benefits:

* VAM supplements all the essential nutritional co-factors and nutrients for performance animals.
* The tissue demands for essential nutrients are very high with hard exercise and training regimes.
* VAM is formulated for use regularly 2 - 3 times weekly.
* VAM helps maintain blood counts, appetite and well being.
* VAM provides the essential nutrients when they are required.

DOSAGE AND ADMINISTRATION

Injection:

Horses: Dose 1 mL per 45 kg (10 mL per 450 kg bodyweight) by intramuscular injection.

Dogs: Dose 0.25 - 1 mL per 10 kg bodyweight by intramuscular injection.

Administer twice weekly, or as directed by a veterinary surgeon.

Cattle: 1 mL per 45 kg (10 mL per 450 kg) bodyweight.

Caution: Avoid Carcase Damage

1. Sterilise all injection apparatus by boiling before use. Avoid use of strong disinfectants on apparatus.
2. Maintain cleanliness at all times.
3. Keep needles sharp and clean.
4. Use needles of appropriate gauge and length.
5. As far as possible avoid injection of animals during wet weather or under dusty conditions.
6. This product must be injected only into muscle tissue.
7. If possible inject into muscle tissue on side of neck.

Paste:

Adult Horse. 10 mL

Dogs. 0.5 mL per 10 kg

To administer: Place the nozzle into the side of the mouth and deposit the paste as far back over the tongue as possible.

VAM is routinely used in combination with many Ceva products, including RECOVERY, COPHOS, AMP-5, JUROCYL.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile injection for intramuscular injection. Product Code: E03320B

250 g paste bag. Product Code: E08020B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (Injection; APVMA 50147 Registered Name: NV VAM Injection)

NOTES

Appetite: Give VAM 2 - 3 times weekly during training and racing to maintain appetite and blood count. Given after a hard race, VAM will help maintain appetite in stressed horses. VAM may be given in combination with JUROCYL every two days to improve appetite and blood counts in particularly stressed or overtrained horses.

Recovery after hard work: Use VAM, RECOVERY and COPHOS B as soon as possible after hard work or racing to improve muscle recovery.

VITAMIN B COMPLEX INJECTION

OTC

Electrolyte and vitamin supplement for animals following heavy exercise and/or sweating

COMPOSITION

Thiamine disulfide nitrate (Vitamin B1) 20 mg/mL
Riboflavin (Vitamin B2) 5 mg/mL
Pyridoxine hydrochloride (Vitamin B6) 20 mg/mL
Nicotinamide (Vitamin B3) 60 mg/mL
Pantothenate (Vitamin B5) 20 mg/mL
Hydroxocobalamin (Vitamin B12) 200 µg/mL

ACTIONS

VITAMIN B COMPLEX INJECTION provides the water soluble vitamins which are essential to carbohydrate and fat metabolism, as well as for protein synthesis.
B COMPLEX VITAMINS:
* maintain nerve function, skin, hair, and muscle tone
* Are vital to all energy supply systems
* Are essential to red blood cell formation
* Help reduce the effects of stress.

What Does It Do?

Thiamine (Vitamin B1) helps maintain normal energy metabolism, and is critical to maintenance of normal muscle and nerve function. High doses help reduce nervousness.
Riboflavin (Vitamin B2) helps cells produce energy. It is also required for growth and for health of skin and mucous membranes, as well as vision.
Nicotinamide (Vitamin B3) is vital for red blood cell formation, and is required for normal metabolism in all cells. Important in maintaining healthy skin and coat.
Pyridoxine (Vitamin B6) is an essential part of protein and amino acid metabolism, and in the formation of new proteins including haemoglobin. It is critical to nervous function and vision, maintains skin integrity, and is involved in red blood cell formation.
Pantothenate (Vitamin B5) plays a key role in energy metabolism, and is necessary in enzymes which make and carry glucose and fatty acids for energy supply. Vitamin B5 is involved in the manufacture of adrenal hormones and brain neurotransmitters. It is necessary for healthy skin and hair coat and has a role in reproduction.
Cyanocobalamin (Vitamin B12) forms part of the coenzymes essential for all cells, particularly rapid turnover cells such as red blood cells, muscle and intestinal cells.
The B COMPLEX VITAMINS are intimately involved with red blood cell formation. They are all closely dependant on each other, so the absence of one will critically effect the activity of all others. As water soluble vitamins, they need to be taken in on a daily basis, and they are equally rapidly excreted, so B COMPLEX VITAMINS must be supplemented on a regular basis. The need for all B COMPLEX VITAMINS is significantly increased in all performance and working horses under stress. Animals under stress frequently have poor appetites, which may be stimulated by the B COMPLEX VITAMINS. Additionally B COMPLEX VITAMINS are of value in recovery from parasitic burdens, injury, surgery and illness, and in old age.

DOSAGE AND ADMINISTRATION

Horses: 5 - 10 mL
Dogs: 1 - 2 mL
Administer by intramuscular injection regularly twice weekly, or as advised by a veterinary surgeon. VITAMIN B COMPLEX can be safely used with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E02120B

STORAGE

Store below 25˚C (Air Conditioning). Store in a dry place.

AVAILABILITY

For General Sale (APVMA 51117)

SEE ALSO

VAM, Vitamin B1, Vitamin B12, Folic Acid, Folic Acid + B12

HANDY HINT

The need for B Complex vitamins is significantly increased in all performance and working horses under stress.

VITAMIN B1 INJECTION

VITAMIN B1 SUPPLEMENT

OTC

Supplement of essential Vitamin B1 (Thiamine)

COMPOSITION

Thiamine hydrochloride (Vitamin B1) 125 mg/mL

ACTIONS

VITAMIN B1 INJECTION provides the essential vitamin Thiamine.

How Does It Work?

Thiamine (Vitamin B1) plays an important role in the metabolism of carbohydrates, and energy production for all cells. Thiamine is most important in the breakdown of pyruvic acid, a waste product in hard working muscles, along with lactic acid. In any situation where carbohydrates are the major energy source, or when glucose is added to the diet, thiamine requirement is increased significantly. Thiamine is essential as part of the coenzyme which is involved in the breakdown of glucose for energy.

Thiamine, in conjunction with Vitamin B6 (Pyridoxine) is essential in the metabolism of proteins and amino acids. Thiamine has effects on all tissues. The most sensitive are nerves, stomach and heart.

Thiamine cannot be stored in the body, and it is rapidly absorbed from the intestine or blood, as well as from injection sites. Like all B Complex vitamins, Thiamine is water soluble, so it is rapidly absorbed and excreted from the body, and requires regular supplementation, especially in hard working animals when dietary input will probably not be sufficient.

Thiamine is found in both meat and cereal products. Small amounts are manufactured in the gut, as long as horses are not under stress. Thiamine in food is destroyed by cooking.

High doses of thiamine are reported to help calm nervous or over excitable horses.

Clinical signs of thiamine deficiency include fatigue, muscle weakness, loss of appetite and increased heart rate. (This may be an important factor in endurance horses fed high grain diets). Many of these signs can be traced back to increased tissue levels of lactic and pyruvic acids. Nerve cells are particularly dependant on carbohydrate metabolism, and normal nerve function is greatly effected by increased levels of these acids during hard work.

DOSAGE AND ADMINISTRATION

Horses: 5 - 10 mL

Dogs: 1 - 2 mL

Administer by intramuscular injection regularly twice weekly, or as advised by a veterinary surgeon. VITAMIN B1 can be safely used with all Ceva products. For added calming effect, consider TRANQUIL paste or MANNERS powder in addition to Vitamin B1 injection.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E02420B

STORAGE

Store below 25˚C (Air Conditioning). Store in a dry place.

AVAILABILITY

For General Sale (APVMA 49860)

NOTES

Trainers Tips: Vitamin B1 is best known for its ability to calm nervous horses when given in large doses. B1 is readily absorbed from the intestine, so may also be given in oral (paste or powder) formulations. Consider TRANQUIL Paste, or MANNERS POWDER in combination with VITAMIN B1 injection if nervous or excitable horses require more effective calming, or if travelling horses do not settle well.

The “bolus” effect of injections immediately prior to conditions which may excite a horse can assist in calming them. Those horses on high grain diets in particular, may benefit from additional VITAMIN B1.

SEE ALSO

Tranquil Paste, Manners Powder, VAM

HANDY HINT

Vitamin B1 is best known for its ability to calm nervous or over excitable horses when given in large doses.

VITAMIN B12 / FOLIC ACID INJECTION

OTC

Individual and combined supplements of folic acid and vitamin B12

COMPOSITION

FOLIC ACID INJECTION:
Folic acid 15 mg/mL
FOLIC ACID / VITAMIN B12 INJECTION:
Folic acid 15 mg/mL
Cyanocobalamin (Vit B 12) 500 µg/mL
VITAMIN B12 INJECTION:
Cyanocobalamin (Vit B 12) 1 mg/mL

ACTIONS

FOLIC ACID and VITAMIN B12 are essential B Complex vitamins, both vitally involved in many critical metabolic processes related to coenzymes for tissue formation, DNA synthesis, complete utilisation of carbohydrates and proteins for nervous tissue maintenance and energy production, and blood counts.
FOLIC ACID and VITAMIN B12 act in synergy in the formation of DNA , and deficiencies can have serious consequences, both in performance horses with a high tissue turnover rate, and in pregnancy and growth of young foals.
Clinically the first sign of deficiency is anaemia. Lack of either FOLIC ACID or VITAMIN B12 can create anaemias. As the deficiency may be indistinguishable for either of these essential vitamins, they are often grouped in one product for therapeutic and preventive use.
How Does It Work?
FOLIC ACID is an essential B Group vitamin which is involved in many metabolic processes as an important coenzyme. Its most important role is in the formation of nucleic acids (DNA) from amino acids.
FOLIC ACID (along with VITAMIN B12, Vitamin B6, Vitamin C and Iron) is vital to the formation of red and white blood cells and haemoglobin, as well as for rapidly dividing cells which include gastrointestinal epitheleal cells, the growing foetus, skin and hair.
FOLIC ACID is involved in the formation of the amino acids methionine and glycine, as well as the vitamin choline. Vitamin B12 is essential to the formation of FOLIC ACID. Folate is abundant in fresh, green feeds, but processing feed rapidly destroys it. FOLIC ACID supplementation is highly recommended during pregnancy, as deficiencies in young growing animals are often associated with retardation. Cooking and storage of feeds destroy Folic Acid levels.
When antibiotics, particularly sulphur drugs, are used for extended periods, the normal synthesis of folic acid in the gut will be reduced, and the requirement for folic acid are increased.
FOLIC ACID requirements are far greater in athletic performance horses where the synthesis and absorption from the gut are reduced by the stress of training and performance.
Supplements of folic acid are reported to improve antibody response in animals.
VITAMIN B12 is useful to stimulate appetite in horses, and is essential in maintenance of adequate blood counts.

DOSAGE AND ADMINISTRATION

(All 3 products): *Horses:* 5 - 10 mL. *Dogs:* 1 - 2 mL.
Administer by intramuscular injection regularly twice weekly, or as advised by a veterinary surgeon.
FOLIC ACID, FOLIC ACID/ VITAMIN B12 and VITAMIN B12 can be used with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

FOLIC ACID / B12 INJECTION: 100 mL sterile multidose glass vial.
Product Code: E02320B
FOLIC ACID INJECTION: 100 mL sterile multidose glass vial.
Product Code: E02520B
VITAMIN B12 INJECTION: 100 mL sterile multidose glass vial.
Product Code: E02020B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 51512 Folic Acid)
(APVMA 51116 Folic Acid/Vitamin B12)
(APVMA 51345 Vitamin B12)

HANDY HINT

Other Ceva preparations contain Vitamin B12, and may be more appropriate to certain requirements. Consider VAM, VITAMIN B COMPLEX or COPHOS B.

VITAMIN C INJECTION

VITAMIN C SUPPLEMENT

OTC

Supplement of Vitamin C (Ascorbic Acid)

COMPOSITION

Ascorbic acid (Vitamin C) 500 mg/mL

ACTIONS

VITAMIN C (Ascorbic acid) INJECTION provides Vitamin C supplementation.
*VITAMIN C is essential to normal joint cartilage maintenance and repair.
*VITAMIN C acts to reduce stress and improves cardiovascular function.
How Does It Work?
Vitamin C is an essential coenzyme in certain metabolic processes, particularly in the metabolism of the amino acids tyrosine and phenylalanine, collagen synthesis in ligaments, tendons and joint cartilage, synthesis of L-Carnitine, red blood cell formation, and modulating immune responses, as well as in the maintenance of healthy skin. It is also essential in the conversion of folic acid, and in promoting the absorption of Iron from the gut. Vitamin C has a role in the metabolism of certain steroid hormones, and high levels of Vitamin C are found in the adrenal gland in times of stress.
VITAMIN C has a major role as a potent antioxidant to remove toxic free radicals produced during hard physical exercise.
VITAMIN C is critical and essential in the maintenance and repair of joints and joint cartilage, synthesis of collagen, proteoglycans and other joint components, tooth, bone, skin and blood vessel maintenance, and in the healing and repair of wounds, burns and fractures.
Vitamin C is essential in the synthesis of L-Carnitine.
Like the B Complex vitamins, Vitamin C is water soluble, and is not well stored in the body. It is rapidly absorbed and equally as rapidly excreted, so must be supplemented on a regular basis.
Horses are able to synthesise Vitamin C in normal circumstances, but failure of liver enzyme systems can initiate a deficiency.
Key Features & Benefits:
*VITAMIN C is a major antioxidant to neutralise free radicals.
*VITAMIN C enhances tissue healing and growth.
*VITAMIN C improves immune function and acts as an anti-inflammatory agent.

DOSAGE AND ADMINISTRATION

Horses. 5 - 10 mL
Dogs. 1 - 2 mL.

Administer by intramuscular injection regularly twice weekly, or as advised by a veterinary surgeon.
VITAMIN C can be safely used with all Ceva products.

WARNINGS

Meat Withholding Period (Horses): Nil

PRESENTATION

100 mL sterile multidose glass vial. Product Code: E02220B

STORAGE

Store below 25˚C (Air Conditioning). Protect from light.

AVAILABILITY

For General Sale (APVMA 51119)

NOTES

Vitamin & Nutrient Interactions: There are close interactions between many essential nutrients. Some of these relationships are extremely complicated, such as the close interaction between Vitamin E and Vitamin B12, calcium, magnesium, Vitamin C, iron, Vitamin A and zinc. Using large doses of Vitamin C also increases requirements for Vitamin B6, Vitamin B12, zinc, folic acid, and choline.
Vitamin C enhances tissue growth and wound healing, acts as a major antioxidant to neutralise free radicals, improves immune function and response, especially in stressed horses, acts to reduce stress, and is critical in the maintenance and repair of joint cartilage and tendons.
As a water soluble vitamin, ascorbic acid must be supplemented regularly two to three times weekly. Vitamin C is essential in the maintenance and repair of joint cartilage.

HANDY HINT

As an alternative to injectable Vitamin C, consider using HI-VITE C with BIOFLAVINOIDS oral paste.

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The Prescription Choice of Equine Specialists

PENTOSAN GOLD® + H.A.

Injection for Horses and Camels

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