

ENERVADE®

Isotonic Solution

Transit Stress:

Calves travelling for longer than 4 hours without fluid or feeding are at risk of changes in the gut predisposing them to scours or pneumonia. It's essential to protect the gut with an isotonic electrolyte to rehydrate the internal lining of the intestine. Always give ENERVADE to these calves as the first feed after arrival at your farm, before giving milk.

EXAGEN - Only with an Isotonic Solution

EXAGEN is the preventative part of the Crypto Scour Programme. For a faster kinder transition back to health, **only use isotonic ENERVADE or KRYPTADE** for any calf developing scours. Scours will be markedly reduced, and calves will recover their appetite faster when ENERVADE is used.

Ad-Lib rehydration:

Calves require water to be available at all times. Calves which are suckling and dehydrated will self-select a palatable isotonic electrolyte until fully rehydrated, and will then revert back to water at that time.

Using ENERVADE for this purpose gives a low cost rehydration therapy.

Faster Rehydration?

Consider stomach tubing, providing a warm solution of 2 litres of ENERVADE. Repeat in 3 hours only if scours is continuing.

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No prescription required

Product Information: Contents 100gm: OneMix Electrolyte Powder

Glycine 9.15g, sodium chloride 8.86g, sodium bicarbonate 6.57g, potassium citrate 0.14g, potassium chloride 1.00g, monopotassium phosphate 2.84g, dextrose 57.14g, Soluble Dietary Fibre (Prebiotic carbohydrate) 14.3g.



Available - 2 litre dose

70 gm Sachets

70 dose (5 kg) buckets

210 dose (15 kg) buckets

From your veterinarian

Crypto Control Programme

KRYPTADE® & EXAGEN® are recommended for use in the Crypto Control Programme to improve recovery or reduce the risk of cryptosporidial calf scours. It is important to have samples taken to diagnose the presence or absence of crypto scours and other causes of infectious scours. See your veterinarian.

www.pvd.co.nz
Phone: 0800 844 466

ENERVADE, KRYPTADE & EXAGEN are the registered trade names of Professional Veterinary Distributors Ltd.

ENERVADE, KRYPTADE & EXAGEN are registered pursuant to the ACVM Act 1997, Nos. AO9410, AO9621, AO9536 See www.foodsafety.govt.nz for registration conditions.

**PROFESSIONAL
VETERINARY
DISTRIBUTORS LIMITED**

**289 Titirangi Rd.
P O Box 60 227. TITIRANGI 0642.
AUCKLAND. NEW ZEALAND**

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ENERVADE®

Isotonic Solution

Rehydration Electrolyte

Calf Scours

Transit Stress

Ad-lib rehydration

EXAGEN's isotonic solution

The New Standard

Balanced electrolytes

Dextrose energy

Bicarbonate acid base

Soluble dietary carbohydrate

Isotonic solution

High palatability

Gentler, faster rehydration

No Withholding Period

For

**For Extra Value
15 kg bucket**

Successful

Rehydration

ENERVADE[®]

Isotonic Solution

ENERVADE[®]

Rehydration electrolyte for calf scours

Ease and convenience of use.

Palatable solution for a suckling calf.

A cost effective, reliable performance.

All the features from the best international research.

Bicarbonate

Correcting for the excess loss of bicarbonate determines faster recovery and improves alertness and strength. This ensures calves overcome depression, and enables faster recovery of suckling reflexes. Bicarbonate ensures faster stomach emptying, faster rehydration and correction of the acid base imbalances. Weakness and inability to sit upright can also be mistaken for blood borne infections. Use of a thermometer is essential to identify the calves with elevated temperatures requiring antibiotic therapy.

Scouring calves die from loss of fluid volume affecting the heart, in combination with low potassium, and loss of acid-base balance.

The level of blood sugar is not a consistent nor reliable indicator of risk of death.

Keep calves warm and supply food if possible. Energy e.g. from milk and/or colostrum is essential for a faster recovery. Introduce food slowly with smaller volumes.

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Electrolyte

The essential salts lost in dehydration have been added to replace those lost with scours. Sodium, potassium, and chloride have been balanced to give rapid and effective replacement.

Isotonic Solution

Isotonic simply means same strength as the internal cell fluids.

It means the fluids on either side of a membrane can exist without fluid volume being forced to move from one side of a membrane to another (they would then become equal). In order for fluid to move from one of the components parts sodium needs to be 'pumped.' This requires energy to move sodium across the membrane. When that happens fluid is carried with the sodium. However too strong a rehydration fluid (hypertonic) risks upsetting this fluid flow and 'dragging' fluid back into the intestinal space, and not rehydrating the internal space requiring the rehydration.

Palatability

High palatability arises from several features all in balance. Neutral pH (water is neutral) or lack of acidity is created by buffering the rehydration fluid to neutral (pH 7) using HPO₄ to counteract the bicarbonate. Use of bicarbonate also ensures a neutral taste avoiding the bitterness of acetate, and the acidity of citrate. Dextrose is added at a concentration that is optimal for sweetness to calves.

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Isotonic Solution

Resistant Maltodextrin (Prebiotic Carbohydrates)

Carbohydrates not digested by the upper intestinal enzymes pass into the large intestine. Here the colon is responsible for 50% of normal fluid absorption. Its energy comes from the breakdown (by 'good bacteria') of fermentable carbohydrates. Providing specific fermentable carbohydrates (prebiotic carbohydrates) ensures the good bacteria multiply. Fluid absorption is therefore improved in the recovering large intestine.

This benefit is as high as 20% in improvement in fluid.

Energy

The energy component of dextrose ensures the uptake of sodium. This assisted sodium absorption carries the fluids with it which strongly improves rehydration. ENERVADE provides an optimal balance of dextrose to maintain high palatability, and isotonic strength for the rehydration treatment. Isotonic strength is important to maintain in a recovering gut (from infectious scours) where the lining is susceptible to high energy, delaying return of appetite.

The Goal: Return the calf to a full milk diet as quickly as possible.

A calf which is given milk is less likely to drink rehydrating fluids—slowing down the efforts to rehydrate. Introduce milk slowly to recovering calves.

Never tube feed a calf with milk which is not suckling; *this will cause serious indigestion and discomfort to the calf.*

Instead tube with an isotonic fluid—ENERVADE.