**Active ingredients** (per syringe):

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>14,175 mg</td>
</tr>
<tr>
<td>Calcium (Ca++)</td>
<td>1,175 mg</td>
</tr>
<tr>
<td>Chloride (Cl-)</td>
<td>4,536 mg</td>
</tr>
<tr>
<td>Magnesium (Mg++)</td>
<td>41 mg</td>
</tr>
<tr>
<td>Potassium (K+)</td>
<td>1,539 mg</td>
</tr>
<tr>
<td>Sodium (Na+)</td>
<td>2,957 mg</td>
</tr>
<tr>
<td>Cobalt (Co)</td>
<td>10 mg</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>162 mg</td>
</tr>
<tr>
<td>Iodine (I)</td>
<td>203 mcg</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>243 mg</td>
</tr>
<tr>
<td>Manganese (Mn)</td>
<td>284 mg</td>
</tr>
<tr>
<td>Selenium (Se)</td>
<td>24 mcg</td>
</tr>
<tr>
<td>Zinc (Zn)</td>
<td>263 mg</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>203 UI</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>2 mg</td>
</tr>
<tr>
<td>Vitamin D₃</td>
<td>10 UI</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>1 mg</td>
</tr>
</tbody>
</table>

**Composition:** Glucose, sodium chloride, calcium carbonate, potassium chloride, magnesium chloride.

**Additives per kg:** Vitamins – E672 vitamin A 5,000 IU; vitamin C 50 mg; E671 vitamin D3 250 IU; 3a700 vitamin E 25 mg. Trace elements - E5 Manganese (manganese chelate of glycine hydrate) 7,000 mg; E6 Zinc (zinc chelate of glycine hydrate) 6,500 mg; E1 Iron (iron chelate glycine hydrate) 6,000 mg; E4 Copper (copper chelate of glycine hydrate) 4,000 mg; E2 Iodine (potassium iodide) 5 mg; E8 Selenium (sodium selenite) 0.6 mg; E3 Cobalt (cobalt carbonate) 0.25 mg. Technological additives - E321 BHT 0.25 mg/kg.

**Analytical constituents:** Protein 8.5%; fat content <0.1%; crude fibres <0.1%; crude ash 35%; humidity 19%; chlorides 11.2%; sodium 7.3%; potassium 3.8%; calcium 2.9%; magnesium 0.01%.

**Properties and mechanism of action:**
- Through sweating horses lose large quantities of Sodium (Na+), Chloride (Cl-) and Potassium (K+). The loss of these minerals causes fatigue and muscular weakness, and paradoxically, decreases the sensation of thirst, thereby blocking the normal rehydration mechanism of horses.
- Electrolytes are mineral salts that play a key role in maintaining the osmotic pressure, body fluid balance and optimal functioning of muscles and the nervous system.
- These minerals are involved in the transmission of electrical impulses to stimulate muscle contractions.
- Moreover, a dehydrated horse has lower blood pressure and, therefore, lower blood flow in muscles and the intestines that can lead to cramps, weakness and muscle incoordination and myositis (accumulation of lactic acid). Therefore, an adequate supply of electrolytes is key for optimal performance in horses.
- Furthermore, dehydration decreases the ability of horses to regulate their body temperature, causing significant injury to the nervous system.
- By providing electrolytes, in addition to replacing losses caused by sweating, the normal hydration mechanism in horses is reactivated, i.e. it causes horses to drink and be properly hydrated.
- Dehydration is more pronounced in humid environments, even when the temperatures are not extremely high, therefore, in areas of high humidity when temperatures are above 12-15°C the use of electrolytes is highly recommended.

**Features**
- Quickly rehydrates and recovers horses in competition, intense training, travel, exposure to high temperatures, etc.
- Speeds up muscular recovery after intense exercise, allowing the horse to return to its peak performance faster.
- Balanced: Sodium, Potassium, Magnesium, Calcium and Chlorine in appropriate proportions.
- Supplemented with glucose, vitamins A, C, D₃ and E, cobalt, copper, iron, iodine, manganese, selenium and zinc.
- Recommended by veterinarians.
- Easy to administer.
- Does not contain doping substances.
- Single-dose oral syringe.
CRONO® Electrolytes

Balanced Electrolytes Supplemented with Glucose, Vitamins and Minerals, Formulated to Rehydrate Horses and Speed up their Muscle Recovery

- Beyond its key objective of re-hydrating, CRONO® Electrolytes provides the following benefits:
  - Iron, Copper and Cobalt stimulate the production of red blood cells to maximise oxygen transport to the muscles, thereby delaying the onset of fatigue and enhancing athletic performance.
  - Vitamins A, C, D₃ and E, Manganese, Selenium, Iodine and Zinc have an antioxidant action: they protect cells and the immune system.
  - Vitamin C is also an effective joint care nutrient.
  - Vitamin D is important for the proper regulation of Calcium and Phosphorus, their intestinal absorption and for optimal bone, muscular and tendon health.
  - Finally, vitamin E and Selenium work together to repair muscles weakened by prolonged exertion.

**Indications:** Helps rehydrate horses in situations causing a large loss of fluids and speeds up their muscle recovery after intense exercise which allows horses to return to their peak performance faster. Situations that require a regular supply of electrolytes:
- Intense or prolonged exercise (in any weather or season).
- Light exercise in conditions with high humidity and/or extreme temperatures.
- Prolonged exposure to high temperatures (e.g. fairs, shows, etc.).
- Horses in training and/or competition in any discipline.
- Mid-distance long walks.
- Transport.
- Stressful situations.
- Diseases or conditions associated with high fever and/or diarrhoea.

**Target species:** Equidae.

**Dosage and administration:** Insert the tip of the syringe into the corner of the horse’s mouth and push the plunger, making sure that it takes in the full dose. If the sweating was very intense, it may be advisable to administer a second dose 4-6 hours after the first. It may be administered before, during or after competition or training. The animals must have permanent access to water.

**Warnings:** This product does not contain any substances which are banned in competition. Keep the container tightly closed in a cool, dry place, away from direct sunlight and out of reach of children and animals.

**Presentation:** Oral paste in a single dose syringe (30 ml).

**Bibliography:**
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Balanced Electrolytes Supplemented with Glucose, Vitamins and Minerals, Formulated to Rehydrate Horses and Speed up their Muscle Recovery

By providing electrolytes, in addition to replacing losses caused by sweating, the normal hydration system of horses is further supported. Dehydration decreases the ability of horses to regulate their body temperature, causing the animal to overheat and become more susceptible to heat stroke. The normal sensation of thirst, thereby blocking the normal rehydration mechanism of horses.

Loss of these minerals causes fatigue and muscular weakness, and paradoxically, decreases the ability of the horse to withstand heat stress.

**Dosage and administration:**

- **Target species:** Horses
- **Indications:** Light exercise in conditions with high humidity and/or extreme temperatures.
- **Administration:** After competition or training. The animals must have permanent access to water.

**Push the plunger, making sure that it takes in the full dose.** If the sweating was very intense, it may be necessary to repeat the dosing a few times.

**CRONO® Electrolytes**

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- **Koterba AM and Carlson GP (1982).** Acid–base and electrolyte alterations in horses with exertional rhabdomyolysis. JAVMA, 80, 303–306.
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