ZOETIS INC.
**333 PORTAGE STREET, KALAMAZOO, MI, 49007**
Telephone: 269-833-4000
Customer Service: 888-963-8471
Website: www.zoetis.com



# RE-SORB®

## *Zoetis*

***Oral Hydration, Electrolyte Product***

**DESCRIPTION:** The 3 main causes of calf scours and resulting dehydration are bacteria *(E. coli* and Salmonella, etc.), viruses, and nutritional factors. In all cases, there is a loss of water and electrolytes due to the scours, which can lead to severe dehydration and death. Generally, whatever the cause of the scours, dehydration is the main cause of death. When fecal loss of water exceeds the water intake, dehydration occurs. This can be corrected with administration of either oral or intravenous fluids. In the severely dehydrated calf, intravenous administration is the route of choice. Oral rehydration is of particular value as it permits the livestock owner to start rehydration therapy at the initial signs of scours which, in many cases, will reduce the severity of the condition. Re-Sorb also provides the owner with a practical method of following up intravenous therapy.

Re-Sorb formula contains the following ingredients: sodium chloride 8.82 grams, potassium phosphate 4.2 grams, citric acid, anhydrous 0.5 grams, potassium citrate 0.12 grams, aminoacetic acid (glycine) 6.36 grams and glucose 44 grams. Osmolarity of the reconstituted solution is approximately 315 mOsm/kg. The pH of the reconstituted solution is approximately 4.3.

**Action:** Oral glucose/glycine compounds have been used with excellent success to treat dehydration accompanying human cholera for many years.[1-3] The rationale for oral rehydration therapy is based upon the active absorption of glucose and glycine when given orally to scouring animals. Their absorption is linked to the simultaneous absorption of sodium and water. This principle has been verified in scouring animals.[4]

*E. coli* produces scours by secreting toxins in the small intestine. These toxins, while causing profuse secretion of water and electrolytes, have no effect on glucose/glycine absorption in the calf.[5] When Re-Sorb is administered, the glucose/glycine along with the water and sodium are absorbed resulting in a net gain in water thereby correcting the dehydration.

In diarrhea caused by viruses, the disease process causes a flattening of the intestinal mucosa which reduces digestion and absorption of milk. The undigested milk passes into the colon where bacterial fermentation results in additional diarrhea.[6] The replacement of milk with Re-Sorb for 2 days followed by a gradual re-introduction of milk mixed with Re-Sorb, provides an opportunity for the gastrointestinal mucosa to rest.

Since Re-Sorb is readily absorbed, it provides the livestock owner with an ideal first feed for the stressed or newly purchased calf. It is widely believed that it is often beneficial to starve or only provide half of the initial feeding of milk to newly purchased calves to reduce stress on the gastrointestinal system. Re-Sorb may be given as the initial feeding following by a 50:50 mixture of Re-Sorb and milk at the second feeding to reduce stress on the gastrointestinal tract.

**INDICATIONS AND USAGE:** Re-Sorb is a readily absorbed source of fluids and electrolytes. It is a convenient and effective means of increasing absorption of water, energy sources, and electrolytes. Re-Sorb is indicated for use in the control of dehydration associated with diarrhea (scours) in calves, including veal calves. Re-Sorb may be used by the livestock owner as an early treatment at the first signs of scouring. It may also be used as follow-up treatment for the dehydrated calf following intravenous fluid therapy.

Re-Sorb, because of its ready source of fluid and electrolytes, makes it an ideal first feed (upon arrival) for newly purchased or severely stressed calves.

**WARNING:** For use in calves only.

**Not for Human Use**

**PRECAUTIONS:** Re-Sorb should not be used in animals with severe dehydration (down, comatose, or in a state of shock). Such animals need intravenous fluids since oral therapy in these cases is too slow. A veterinarian should be consulted in such severely scouring calves or in cases requiring antibacterial therapy.

Antibacterial therapy is often indicated in bacterial scours due to *E. coli* and/or Salmonella. Re-Sorb does not contain antibacterial agents.

Adequate colostrum intake during the first 12 hours is essential for healthy, vigorous calves.

Re-Sorb is not nutritionally complete if administered by itself for long periods of time. It should not be administered beyond the recommended treatment period without the addition of milk or milk replacer.

**DOSAGE AND ADMINISTRATION:**

**Mixing Directions:** Add the contents of 1 packet (both sides) to 2 quarts of warm water. Stir until dissolved.

**Scouring Calves:** Feed 2 quarts of Re-Sorb solution made up as directed, twice daily for 2 days (4 feedings). No milk or milk replacer should be fed during this period. For the next 4 feedings (days 3 and 4), use 1 quart of Re-Sorb solution mixed together with 1 quart of milk or milk replacer. Thereafter, feed as normal.

**Newly Purchased Calves:** Feed 2 quarts of Re-Sorb solution made up as directed instead of milk as the first feed upon arrival. For the next scheduled feeding, use 1 quart of Re-Sorb solution mixed together with 1 quart of milk or milk replacer. Thereafter, feed as normal.

**HOW SUPPLIED:** Re-Sorb is supplied in boxes containing 12 packets (double-sided) and in buckets containing 72 packets (double-sided).

**STORAGE:** Store at controlled room temperature 15°-30°C (59°-86°F).

**REFERENCES:**


1. Nalin DR: *GUT* 11:768-772, 1970.
2. Pierce NF and Hirshhorn N: *WHO Chron* 31:87-93, 1977.
3. *J Hopkins Med J* 132:197-250, 1973.
4. Bywater R: *AJVR* 38:1983, 1977.
5. Bywater R: *J Comp Path* 80:565, 1970.
6. Halpin CS and Caple IW: *Aust Vet J* 52:438, 1976.



NADA #125-961, Approved by FDA

Made in China

Distributed by: Zoetis Inc., Kalamazoo, MI 49007

A76004-2

Revised: January 2013

**NAC No.:** 3690019.3