



PRODUCT DATA SHEET



EMCELLE® E-D₃ LIQUID

MICELLIZED, WATER-DISPERSIBLE, LIQUID VITAMIN E and D
(500 I.U. vitamin E (d-*alpha*-tocopherol) and 30,000 I.U. vitamin D₃ per mL)
NDC 59007-3030-1

DESCRIPTION

EMCELLE E-D₃ LIQUID is a clear, micellized, water-dispersible, liquid solution of vitamin E and vitamin D. The product is specially formulated for use in liquid diets or mixed into drinking water. The product should not be mixed into complete feeds and stored for extended periods of time due to the unstable form of vitamin E.

The vitamin E activity is provided as d-*alpha*-tocopherol (RRR-*alpha*-tocopherol), a natural-source and biologically active form of vitamin E. This form of vitamin E, although less stable than ester-forms of tocopherol, does not have to be hydrolyzed (deesterified) prior to intestinal absorption. This is the same form of Vitamin E (*alpha*-tocopherol) that is found in sows milk. This appears to be of greater importance to young pigs that may have a deficiency of esterase enzymes necessary to cleave the ester from the tocopheryl moiety prior to absorption. Pigs have been shown to be unable to efficiently utilize vitamin E esters supplemented in the feed (Moreira and Mahan, 2002, J. Anim. Sci. 78:110).

The vitamin D activity is provided as cholecalciferol. Vitamin D, like vitamin E, needs to be micellized prior to being absorbed.

The micellization process enhances the ability of animals to utilize fat-soluble vitamins (see figure). The process allows the solubilized fat-soluble vitamins to be absorbed more readily than dry, oil-based, or emulsion- forms of fat-soluble vitamins. Conventional supplemental fat-soluble vitamins have to be micellized prior to absorption.

PACKAGE SIZE

Available in 1 liter (33.8 fl oz) plastic bottles. Twelve bottles per shipper.

FOR ANIMAL USE ONLY – NOT FOR HUMAN USE

Store at room temperature or under refrigeration.

Avoid freezing and excessive heat.



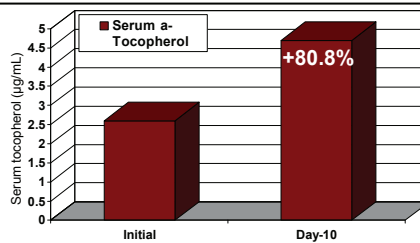
DRINKING WATER DIRECTIONS

To prepare a stock solution for piglets, mix 1 to 3 oz. **EMCELLE E-D₃** to one gallon of water.

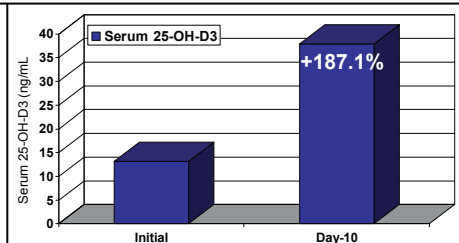
Meter the stock solution at the rate of 1 fl. oz. per gallon of drinking water. This will provide approximately **120 to 360 I.U. vitamin E** and **7,200 to 21,500 I.U. vitamin D** per gallon drinking water.

For newly-weaned piglets, **EMCELLE E-D₃** should be administered for up to 21 days post-weaning.

Effectiveness of EMCELLE E-D₃ on vitamin E & D status in weaned pigs



EMCELLE E-D₃ administered through drinking water for 10 days. 120 I.U./gallon drinking water.



EMCELLE E-D₃ administered through drinking water for 10 days. 7200 I.U. D/gallon drinking water