



PRODUCT DATA SHEET



EMCELLE MILKADE®

MICELLIZED, WATER-DISPERSIBLE
FAT-SOLUBLE VITAMINS FOR CALVES, LAMBS AND PIGS
(50,000 I.U. vitamin A, 25,000 I.U. vitamin D₃ and 500 I.U. vitamin E I.U./mL)
NDC 59007-3090-0

DESCRIPTION

MILKADE® is a clear, micellized, water-dispersible, liquid solution of vitamins A, D and E. The product is specially formulated for animals fed pasteurized whole milk and can be added to milk prior to pasteurization or added to whole milk at time of feeding.

The vitamin E activity is provided as *d-alpha*-tocopherol (*RRR-alpha*-tocopherol), a natural-source and biologically active form of vitamin E. This is the same form of vitamin E found in whole milk. Although less stable than the acetate-ester of tocopherol, this vitamin E source does not have to be hydrolyzed in the neonate's intestinal tract prior to absorption. This is of greatest importance to animals that may have a deficiency of esterase enzymes necessary to remove the ester prior to absorption since neonates do not efficiently utilize vitamin E-acetate that is typically supplemented in other products (Lauridsen, et al. 2001. J. Nutritional Biochem. 12:219-224).

Vitamin A activity is provided as retinyl-palmitate, a form of vitamin A found in whole milk. Whole milk is a very poor source of vitamin D. Increasing oral vitamin D supplementation fourteen-fold increased milk content only by two-fold. Whole cow's milk contained only 11 I.U. per liter (Reeve et al. 1982. J. Nutr. 112: 667-672).

The micellization process enhances animal's ability to utilize the fat-soluble vitamins. This process makes the fat-soluble vitamins readily dispersible in milk and water which allows the fat-soluble vitamins to be readily absorbed compared to powders or oily-forms of fat-soluble vitamins.

PACKAGE SIZE

Available in 1 liter (33.81 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.

USE DIRECTIONS

MILKADE should be added directly to milk daily when neonates are fed whole milk, added to drinking water, or orally dosed.

DIRECTIONS for MILK FED CALVES

Supplement at the rate of **0.2 to 0.5 mL per calf once per day** to provide 100 to 250 I.U. vitamin E, 10,000 to 25,000 I.U. vitamin A, and 5,000 to 12,500 I.U. vitamin D per day.

DIRECTIONS for MILK FED LAMBS

Supplement at the rate of **0.1 mL per lamb once per day** to provide 50 I.U. vitamin E, 5,000 I.U. vitamin A, and 2,500 I.U. vitamin D per day.

DRINKING WATER DIRECTION for PIGS

Make a stock solution by mixing **3 fl. oz. MILKADE to one gallon of water**. Deliver the stock solution at the rate of 1 fl. oz. per gallon drinking water.



INFORMATION PROVIDED BY



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Supplier of Injectable and Liquid Vitamin E Supplements that Work: **VITAL E®** Injectables • **EMCELLE®** Liquids