

**VITAMIN K1 INJECTABLE- phytonadione injection**  
**Neogen Corporation - Nandino**

*Disclaimer: This drug has not been found by FDA to be safe and effective, and this labeling has not been approved by FDA. For further information about unapproved drugs, click here.*

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**NeogenVet Vitamin K<sub>1</sub> Injection**

**FOR ANIMAL USE ONLY**

**Each mL contains:**

- Phytonadione.....10 mg
- Emulphor EL-719.....70 mg
- Dextrose H<sub>2</sub>O.....41.2 mg
- Benzyl Alcohol (preservative).....1.5%
- Water for Injection.....q.s.

Protect from light - store in a dark place. Store at controlled room temperature between 15°-30°C (59°-86°F).

Rev. 7-09  
V-0681-04  
Item No. 09089

**Principal Display Panel Vitamin K<sub>1</sub> Injection 100 mL**

NDC: 59051-9089-5  
Vitamin K<sub>1</sub> Injections  
(Phytonadione) 10 mg/mL  
Aqueous Colloidal

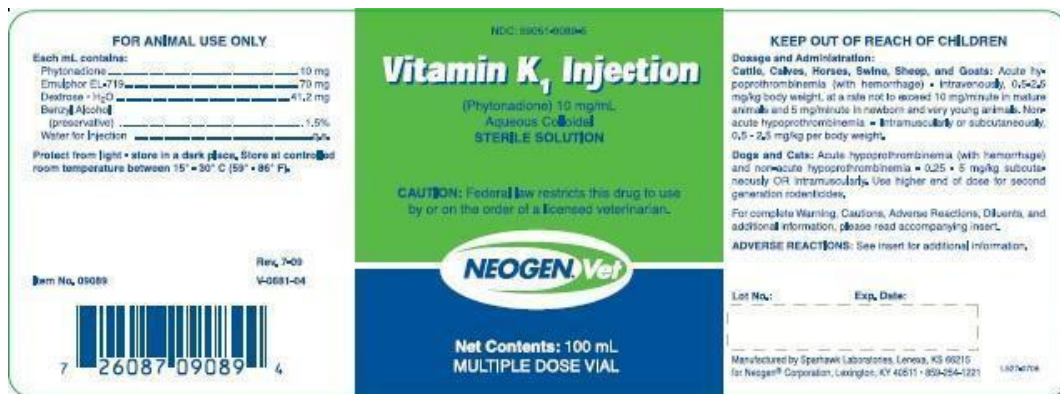
**STERILE SOLUTION**

**CAUTION:** Federal law restricts this drug to use by or on the order of a licensed veterinarian.

**NEOGEN.Vet**

**Net Contents: 100 mL**

**MULTIPLE DOSE VIAL**



**KEEP OUT OF REACH OF CHILDREN**

**Dosage and Administration:**

**Cattle, Calves, Horses, Swine, Sheep, and Goats:** Acute hypoprothrombinemia (with hemorrhage):

intravenously, 0.5-2.5 mg/kg body weight, at a rate not to exceed 10 mg/minute in mature animals and 5 mg/minute in newborn and very young animals. Non-acute hypoprothrombinemia: intramuscularly or subcutaneously, 0.5-2.5 mg/kg per body weight.

☐ **Dogs and Cats** ☐ Acute hypoprothrombinemia (with hemorrhage) and non-acute hypoprothrombinemia - 0.25-5 mg/kg subcutaneously OR intramuscularly. Use higher end dose for second generation rodenticides.

☐ **ADVERSE REACTIONS:** ☐ See insert for additional information.

Manufactured by Sparhawk laboratories, Lenexa, KS 66215  
for Neogen® Corporation, Lexington, KY 40511 859-254-1221

☐ **Package Insert**

☐ **VITAMIN K<sub>01</sub>** ☐

☐ (Phytonadione)

☐ **Injection**

Vitamin K Injection

(Phytonadione)

Aqueous Colloidal Solution of Vitamin K<sub>01</sub> ☐

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☐ **WARNING---INTRAVENOUS USE:**

☐ Severe reactions, including fatalities, have occurred during and immediately after INTRAVENOUS injection of Phytonadione, even when precautions have been taken to dilute the Vitamin K<sub>01</sub> ☐ and to avoid rapid infusion. Typically, these severe reactions have resembled hypersensitivity or anaphylaxis, including shock and cardiac and or respiratory arrest. Some animals have exhibited these severe reactions on receiving Vitamin K<sub>01</sub> ☐ Injection for the first time.

Therefore, the intravenous route should be restricted to those situations where other routes are not feasible and the serious risk involved is considered justified.

See ADVERSE REACTION section for possible Intramuscular and Subcutaneous reactions.

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☐ **DESCRIPTION:** ☐ Vitamin K<sub>01</sub> ☐ Injection is a yellow, sterile aqueous colloidal solution of Vitamin K<sub>01</sub> ☐ (phytonadione), available for injection by the intravenous, intramuscular and subcutaneous routes. Each mL contains:

- Phytonadione.....10 mg
- Inactive Ingredients
- Emulphor EL-719.....70 mg
- Dextrose H<sub>2</sub>O.....41.2 mg
- Water.....q.s.
- Added as a preservative
- Benzyl Alcohol.....1.5%

☐ **ACTIONS:** ☐ Vitamin K<sub>01</sub> ☐ Injection, an aqueous colloidal solution of Vitamin K<sub>01</sub> for parenteral injection, possesses the same type and degree of activity as does naturally occurring Vitamin K. The primary function of vitamin K is to stimulate the production via the liver of active prothrombin from a precursor protein. The mechanism by which vitamin K promotes formation of prothrombin at the molecular level has not been established. The action of the aqueous colloidal solution, when administered intravenously, is generally detectable within an hour or two and hemorrhage is usually controlled within 3 to 6 hours. A normal prothrombin level may often be obtained in 12 to 14 hours.

☐ **INDICATIONS:** ☐ Vitamin K<sub>01</sub> ☐ Injection is indicated in cattle, calves, horses, swine, sheep, goats, dogs and cats to counter Hypoprothrombinemia induced by ingestion of coumarin-based compounds, common ingredients in commercial rodenticides. Vitamin K<sub>01</sub> ☐ Injection is also indicated to counter hypoprothrombinemia caused by consumption of Bishydroxycoumarin found in spoiled and moldy sweet clover.

☐ **NOTE:** ☐ Regular determinations of prothrombin time response should be performed to guide in the

initial and subsequent administration of Vitamin K<sub>1</sub> Injection. The dosage should be adjusted accordingly.

**CONTRAINDICATIONS:** Hypersensitivity to any component of this medication.

**WARNINGS:** An immediate coagulant effect should not be expected after administration of phytonadione. A minimum of 1 to 2 hours is required for measurable improvement in the prothrombin time. Whole blood or component therapy may be necessary if the bleeding is severe.

Phytonadione will not counteract the anticoagulant action of heparin.

Repeated large doses of vitamin K are not warranted in hepatic disease if the response to the initial therapy is unsatisfactory. Failure to respond to vitamin K may indicate that the condition being treated is inherently unresponsive to vitamin K.

<b>VITAMIN K1 INJECTABLE</b>				
phytonadione injection				
<b>Product Information</b>				
<b>Product Type</b>	PRESCRIPTION ANIMAL DRUG	<b>Item Code (Source)</b>	NDC:59051-9089	
<b>Route of Administration</b>	INTRAMUSCULAR, INTRAVENOUS, SUBCUTANEOUS			
<b>Active Ingredient/Active Moiety</b>				
	<b>Ingredient Name</b>	<b>Basis of Strength</b>	<b>Strength</b>	
	PHYTONADIONE (UNII: A034SE7857) (PHYTONADIONE - UNII:A034SE7857)	PHYTONADIONE	10 mg in 1 mL	
<b>Inactive Ingredients</b>				
	<b>Ingredient Name</b>	<b>Strength</b>		
	PEG-40 CASTOR OIL (UNII: 4ERD2076EF)			
	DEXTROSE (UNII: IY9XDZ35W2)			
	BENZYL ALCOHOL (UNII: LKG8494WBH)			
	Water (UNII: 059QF0K00R)			
<b>Packaging</b>				
<b>#</b>	<b>Item Code</b>	<b>Package Description</b>	<b>Marketing Start Date</b>	<b>Marketing End Date</b>
1	NDC:59051-9089-5	100 mL in 1 VIAL, MULTI-DOSE		
<b>Marketing Information</b>				
<b>Marketing Category</b>	<b>Application Number or Monograph Citation</b>	<b>Marketing Start Date</b>	<b>Marketing End Date</b>	
unapproved drug other		11/27/2012		

**Labeler** - Neogen Corporation - Nandino (042125879)

<b>Establishment</b>			
<b>Name</b>	<b>Address</b>	<b>ID/FEI</b>	<b>Business Operations</b>
Sparhawk		147979082	manufacture, analysis, sterilize