

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

078696749

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

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MATERIAL SAFETY DATA SHEET  
VEDCO VEDA-K1 INJECTION

SECTION 1- PRODUCT INFORMATION

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Manufacturer: Amvet Scientific Products Inc.

Address: 20 Old Dock Road  
Yaphank NY 11980

Emergency Telephone number:

Chemical name and synonyms: Phytonadione injection

Trade name and synonyms: Veda-k1 injection (600044)

Chemical family: Veterinary blood coagulant

Formula: N/A Chemical mixture

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SECTION 2- HAZARDOUS INGREDIENTS

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N/A

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SECTION 3- PHYSICAL DATA

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Boiling point: \*F: N/A

Vapor pressure (mmHg): N/A

Vapor density (air=1): N/A

Solubility in water: Soluble

Specific gravity (H2O=1): 0.954

Percent, volatile by volume (%): N/A

Evaporation rate: N/A

Appearance and odor: Clear, light-yellow, non-viscous liquid with a faint odor

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SECTION 4- FIRE & EXPLOSION HAZARD DATA

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Flash point (method used): N/A

Flammable Limits: N/A

LEL: N/A

UEL: N/A

Extinguishing media: As appropriate for surrounding material

Special fire fighting procedures: None

Unusual fire and explosion hazards: None

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SECTION 5- HEALTH HAZARD DATA

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Threshold limit value: N/A

Effects of overexposure: Nausea, vomiting, shortness of breath, liver and circulatory system effects.

Target organs: Eyes, skin, GI tract

Primary routes of entry: Eye & skin contact, ingestion

Eye contact: Flush eyes with water for 15 minutes. Seek medical attention if irritation persists.

Skin contact: Wash with soap and water. Seek medical attention if irritation persists.

Inhalation: Remove victim to fresh air. Apply artificial respiration if needed.

Ingestion: Induce vomiting if victim is conscious. (Never induce vomiting in an unconscious person)

Seek medical attention if adverse reactions occur.

Emergency first aid procedure: Contact nearest poison control center

NTP: No

IARC: No

Z list: No

OSHA: No

EPA: No

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## SECTION 6- REACTIVITY DATA

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Stability: Stable

Conditions to avoid: None known

Incompatibility (materials to avoid): None known

Hazardous decomposition products: None known

Hazardous polymerization: Will not occur

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## SECTION 7- SPILL OR LEAK PROCEDURES

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Steps to be taken in case material is released or spilled: Flush to drain using plenty of water.

Waste disposal methods: As per federal, state and local regulations.

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## SECTION 8- SPECIAL PROTECTION INFORMATION

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Respiratory protection information (specify type): None normally required.

Ventilation: None normally required

Protective gloves: If desired

Eye Protection: Yes

Other protective equipment: Special protective equipment not normally needed.

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## SECTION 9- SPECIAL PRECAUTIONS

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Cautions to be taken in handling & storing: Store per label directions.

Other precautions: READ AND FOLLOW ALL LABEL AND PACKAGE INSERT DIRECTIONS.

NOTES, THE INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET IS PROVIDED IN GOOD FAITH AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, THE MANUFACTURER ASSUMES NO WARRANTIES EXPRESSED OR IMPLIED. USERS OF THESE PRODUCTS ARE ADVISED TO VERIFY THAT THE INFORMATION IS SUITABLE TO THEIR PARTICULAR PURPOSES PRIOR TO THEIR USE OF THEM.

**SECTION 1: Identification of the substance/mixture and of the company**

## 1.1 Product identifier

- Product Name(s): **Vitamin K<sub>1</sub> Injection**
- Product Part Number(s): **09089**
- Brand(s): Neogen®Vet

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/preparation: An injectable sterile solution for use in domestic animals.
- Uses advised against: CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian. For animal use only. Not for human use.

## 1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Sparhawk Laboratories, Inc. for Neogen Corporation
- Address of Manufacturer: 944 Nandino Blvd.  
Lexington, Kentucky 40511  
USA
- Telephone: 859/254-1221 • 800/525-2022
- Email: [Inform@neogen.com](mailto:Inform@neogen.com)

## 1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300  
Outside USA and Canada: +1 (703) 527-3887

**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Not classified as hazardous for supply

Classification (WHMIS 2015 HPR)

- Not classified as hazardous for supply

## 2.2 Label elements

- Signal Word: None
- Symbols: None
- Hazard phrases  
None
- Precautionary Phrases  
Wash hands thoroughly after handling.  
Avoid prolonged contact with skin, eyes, or clothing.

## 2.3 Other hazards

- May cause nausea or other gastrointestinal symptoms if swallowed.
- Keep out of reach of children.

**SECTION 3: Composition/information on ingredients**

## 3.1 Substances

## 3.2 Mixtures

This product is a mixture of the substances listed below with the addition of non-hazardous materials

Chemical	Concentration	CAS No.	H-Statements	Symbols
Benzyl alcohol	2.00%	100-21-6	H302, H332	GHS07
Phytonadione, USP (Vitamin K <sub>1</sub> )	1.00%	84-80-0	None	None

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

- For full text of Hazard statements: see Section 16.

**SECTION 4 First aid measures**

## 4.1 Description of first aid measures

- General  
In case of doubt, or when symptoms persist, seek medical attention.  
If used as directed, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.

## SECTION 4 First aid measures (continued)

- Contact with skin  
Remove contaminated clothing.  
Rinse affected area with plenty of water.  
Contaminated clothing should be laundered before reuse.
- Contact with eyes  
If in eyes: Rinse cautiously with water for several minutes.  
If eye irritation persists: Get medical advice/attention.
- Ingestion  
Rinse mouth with water (do not swallow).  
Never make an unconscious person vomit or drink fluids.  
If medical advice is needed, have product container or label at hand.
- Inhalation  
If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
Call a poison center or doctor/physician if you feel unwell.

### 4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.
- Intravenous injection of vitamin K<sub>1</sub> has resulted in anaphylactic shock and/or death.

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## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

### 5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- See Section 10.

### 5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

### 5.4 Hazardous Combustion Products

- May include carbon oxides.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

### 6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

### 6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials, rinsates, and wastes in accordance with local/national/international regulations.

### 6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.

**SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

## 7.2 Conditions for safe storage, including any incompatibilities

- Store at controlled room temperatures between 15-30°C (59-86°F).
- Protect from light.
- Keep out of reach of children.

## 7.3 Specific end use(s)

- An injectable sterile solution for use in domestic animals.

**SECTION 8: Exposure controls/personal protection**

## 8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Basis
Benzyl alcohol	100-51-6	TWA	10 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

## 8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection.
- Wear protective gloves to prevent prolonged or repeated skin contact.
- Wear safety glasses approved to standard for ANSI Z87, according to the concentration and amount of dangerous substance at the specific workplace.
- Wear suitable protective clothing in accordance with good industrial hygiene and safety practices in the event of prolonged exposure to bulk quantities.

**SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

- Appearance: Clear liquid
- Odor: No information available
- pH: No information available
- Melting Point/Range: No information available
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer.

## 9.2 Other information

- No information available

**SECTION 10: Stability and reactivity**

## 10.1 Reactivity

- No information available

## SECTION 10: Stability and reactivity (continued)

### 10.2 Chemical stability

- Considered stable under normal conditions.

### 10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

### 10.4 Conditions to avoid

- Protect from light.

### 10.5 Incompatible materials

- None known

### 10.6 Hazardous Decomposition Products

- May include carbon oxides.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

- No experimental test data available for mixture
- ATEmix = 71,429 mg/kg (oral)
- Contact with skin  
May cause redness and irritation in sensitive individuals.  
Based on available data, the classification criteria are not met.
- Contact with eyes  
May cause redness and irritation in sensitive individuals.  
Based on available data, the classification criteria are not met.
- Ingestion  
Product is not toxic, but may cause nausea or other gastrointestinal symptoms in sensitive individuals.  
Based on available data, the classification criteria are not met.
- Inhalation  
Not a likely route of exposure. May cause respiratory irritation in sensitive individuals if inhaled.  
Based on available data, the classification criteria are not met.
- Carcinogenicity  
Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.  
Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.  
Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity  
No evidence of mutagenic effects.
- Teratogenicity  
No evidence of teratogenic effects.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Benzyl alcohol

##### Toxicity to fish

LC<sub>50</sub> – Lepomis macrochirus (Bluegill) = 10 mg/L-96h

LC<sub>50</sub> – Pimephales promelas (Fathead minnow) = 460 mg/L-96h

##### Toxicity to daphnia and other aquatic invertebrates

EC<sub>50</sub> – Daphnia magna (Water flea) = 55 mg/L-24h

EC<sub>50</sub> – Daphnia magna (Water flea) = 230 mg/L-48h

### 12.2 Persistence and degradability

#### Biodegradability

Biotic/Aerobic – Exposure time 28d

Result: 92-96% (Readily biodegradable)

Aerobic biochemical oxygen demand – Exposure time 7d

Result: 92-96% (Readily biodegradable)

(OECD Test Guideline 301C)



**SECTION 12: Ecological information (continued)**

## 12.3 Bioaccumulation Potential

- No information available

## 12.4 Mobility in soil

- No information available

## 12.5 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.

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**SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

- Disposal should be in accordance with local, state, national, or international regulations.
- Do not discharge into drains or the environment, dispose to an approved waste disposal facility.
- Do not reuse empty containers.

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**SECTION 14: Transport information**

## 14.1 UN Number

- Not classified as hazardous for transport

## 14.2 UN Proper Shipping Name

- Not applicable

## 14.3 Transport hazard class(es)

- Not applicable

## 14.4 Packing group

- Not applicable

## 14.5 Environmental hazards

- Not classified

## 14.6 Special precautions for user

- Not classified

## 14.7 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable

## 14.8 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

## 14.9 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

## 14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
  - ICAO UN No.: Not applicable
  - ICAO Hazard Class: Not applicable
  - ICAO Packing Group: Not applicable
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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The labeling requirements of the Federal Food, Drug, and Cosmetic Act differ from the classification criteria and hazard information required for safety data sheets and for workplace labels under the OSHA Hazard Communication Standard 29 CFR 1910.1200. Following is the hazard information as required on the drug label:

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

KEEP OUT OF REACH OF CHILDREN

FOR ANIMAL USE ONLY

NOT FOR HUMAN USE

- NDC: 59051-9089-5

**15.2 United States Regulatory Information****SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Toxic Substance Control Act (TSCA)**

This product is exempt from TSCA under Section 3(2)(B)(vi) when used for pharmaceutical application.

**State Right-to-Know**

Massachusetts

Benzyl alcohol, CAS No. 100-51-6

Pennsylvania

Benzyl alcohol, CAS No. 100-51-6

**15.3 Canadian Regulatory Information**

- This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR). The labelling may differ subject to the requirements of the Food and Drugs Act (FDA).
- WHMIS Classification: Exempt
- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Not listed

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**SECTION 16: Other information**

Document Number: SDS-9038, Vitamin K<sub>1</sub> Injection

Date of Preparation: June 22, 2016

Revision: Rev. 0

Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H302: Harmful if swallowed. H332: Harmful if inhaled.

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.