

SAFETY DATA SHEETS

This SDS packet was issued with item:

078917972

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

078071237 078465639 078790957 078917150 078920140

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

078088327 078088335 078323092 078796007 078917145

MATERIAL SAFETY DATA SHEET

Section I – Product Information			
Product Name or Identity:	VITAMIN B-12 3000 mcg/mL, VITAMIN B-12 5000 mcg/mL		
Manufacturer's Name:	Neogen Corporation	Emergency Phone No.:	800 424 9300
	944 Nandino Blvd	Int'l Emergency Phone No.:	703 527 3887
	Lexington, KY 40511	Phone No.:	<u>859 254 1221</u>
Date Prepared or Revised:	05/17/2010	Fax No.:	859 255 5532

Section II – Hazardous Ingredients / Identity Information			
Hazardous Components (Specific Chemical Identity: Common Names)	OSHA PEL (Permissible Exposure Limits)	ACGIH TLV (Threshold Limit Value)	Toxicity Data LD ₅₀
CYANOCOBALAMIN 3000 ug/mL, 5000 ug/mL	N/A	N/A	3 mg/Kg-IP Mouse
BENZYL ALCOHOL 1.5% V/V	50 ug-eye-rabbit severe irritation	N/A	1230 mg/Kg- Oral Rat

Section III – Physical Characteristics	
Boiling Point: NO DATA AVAILABLE	Specific Gravity (H ₂ O = 1): 1.006
Vapor Pressure (mm Hg.): NO DATA AVAILABLE	Melting Point:
Vapor Density (AIR = 1): NO DATA AVAILABLE	Evaporation Rate (Butyl Acetate = 1): N/A
Solubility in Water: SOLUBLE	
Appearance and Odor: CLEAR, DARK RED, NON-VISCOUS LIQUID, FAINT ODOR OF BENZYL ALCOHOL	

Section IV – Fire and Explosion Hazard Data	
Flash Point (<i>Method Used</i>): NO DATA AVAILABLE	Flammable Limits: LEL (Lower Explosive Limit) - N/A UEL (Upper Explosive Limit) - N/A
Extinguishing Media: WATER SPRAY, CO2, DRY CHEMICAL POWDER, FOAM	
Special Fire Fighting Procedures: WEAR FULL FACEPLATE AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS	
Unusual Fire and Explosion Hazards: NONE	

Section V – Reactivity Data			
Stability	Unstable		Conditions to Avoid: NONE KNOWN
	Stable	X	
Incompatibility (<i>Materials to Avoid</i>): OXIDIZING AGENTS			
Hazardous Decomposition or Byproducts: CARBON MONOXIDE, CARBON DIOXIDE			
Hazardous Polymerization	May Occur		Conditions to Avoid: NONE KNOWN
	Will Not Occur	X	

Section VI – Health Hazard Data			
Route(s) of Entry:	Inhalation-none	Skin-Minor	Ingestion-Primary
Health Hazards (Acute and Chronic)			
Carcinogenicity:	NTP-Non-carcinogenic (National Toxicology Program)	IARC Monographs (International Agency for Research in Cancer)	OSHA Regulated-Yes
Signs and Symptoms of Exposure: Data not available			
Medical Conditions Generally Aggravated by Exposure: None known			
Emergency / First Aid Procedures	Ingestion: INDUCE VOMITING ONLY ON THE ADVICE OF A MEDICAL PROFESSIONAL		
	Inhalation: REMOVE TO FRESH AIR, SEEK PROMPT MEDICAL ATTENTION IF IRRITATION DEVELOPS		
	Eye Contact: WASH WITH COPIOUS AMOUNTS OF WATER		
	Skin Contact: WASH WITH SOAP AND COPIOUS AMOUNTS OF WATER		

Section VII – Precautions for Safe Handling and Use
Accidental Release Measures: SWEEP OR MOP UP RELEASED MATERIAL TO SUITABLE CONTAINER
Waste Disposal Method: DISPOSAL IN DRY LANDFILL IS ACCEPTABLE. ENSURE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS
Handling and Storing: READ AND FOLLOW ALL LABEL DIRECTIONS
Other Precautions: FOR VETERINARY USE ONLY

Section VIII – Control Measures		
Respiratory Protection (Specify Type): NONE REQUIRED		
Ventilation	Local Exhaust: GENERAL DILUTION OR LOCAL EXHAUST	Special:
	Mechanical (General):	Other:
Protective Gloves: RUBBER GLOVES		Eye Protection: SAFETY GLASSES OR GOGGLES MAY BE USED
Other Protective Clothing or Equipment: NONE REQUIRED		
Work / Hygienic Practices:		

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.

SECTION 1 Identification of the substance/mixture and of the company**1.1 Product identifier**

- Product Name(s): **Cyanocobalamin 3000 mcg, Cyanocobalamin 5000 mcg**
- Product Part Number(s): **09087, 09088**
- Brand(s): NeogenVet®

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

- Use of the substance/preparation: Injectable sterile solution for use in managing vitamin B₁₂ deficiencies in animals.
- Use 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: Nova-Tech, Inc. for Neogen Corporation
- Address of Manufacturer: 944 Nandino Blvd.
Lexington, Kentucky 40511
USA
- Telephone: 859/254-1221 • 800/525-2022 (USA/Canada)
- Email: 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
Do not breathe mist/vapors/fumes/spray.
Avoid contact with eyes, skin, or clothing.

2.3 Other hazards

- May be mildly irritating to skin and eyes.
- May cause nausea or gastrointestinal symptoms if swallowed.

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
Cyanocobalamin	3000-5000 mcg	68-19-9	None	None
Benzyl alcohol	1.5%	100-51-6	H302, H332	GHS07
Sodium chloride	0.8%	7647-14-5	None	None
Water for injection	q.s.	7732-14-5	None	None
Buffered with Acetic acid		64-197	H226, H314	GHS02, GHS05

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.
In general, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
Remove contaminated clothing.
Wash affected area with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Contaminated clothing should be laundered before reuse.
- Contact with eyes
If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
Irrigate eyes thoroughly while lifting eyelids.
Seek medical advice if necessary.
- 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.

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.

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.

SECTION 6 Accidental release measures (continued)

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 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 temperatures between 15-30°C/59-86°F.
- Avoid exposure to light.
- Keep out of reach of children.

7.3 Specific end use(s)

- Injectable sterile solution for use in managing vitamin B₁₂ deficiencies in animals.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- This product contains no substances >1% with occupational exposure limit values.

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, red solution, free of particles
- Odor: Benzyl alcohol odor
- pH: 4.5-7.0
- Melting Point/Range: Not applicable
- 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

SECTION 9 Physical and chemical properties (continued)

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

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

- Avoid exposure to light.

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- Decomposition products may include carbon oxides.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
- ATEmix =66,667 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 irritation of the throat and/or nausea in sensitive individuals.
 - Based on available data, the classification criteria are not met.
- Inhalation
 - Not a likely route of exposure. May cause 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.

SECTION 12 Ecological information

12.1 Toxicity

- This product is not classified as hazardous to the environment under U.S. regulations.

12.2 Persistence and degradability

- No information available

12.3 Bioaccumulation Potential

- No information available

12.4 Mobility in soil

- No information available

SECTION 12 Ecological information (continued)

12.6 Other Adverse Effects

- To the best of our knowledge, the properties of this material have not been fully evaluated.
- On available data, substance is not harmful to the environment.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

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

Warning: Do not use in horses intended for food.

- NDC(s): 59051-8087-5, 59051-8088-5

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

No SARA Hazards

Toxic Substance Control Act (TSCA)

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

Canadian Regulatory Information

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

SECTION 16 Other information

Document Number: SDS-9025, Cyanocobalamin 3000mcg, Cyanocobalamin 5000mcg

Date of Preparation: May 10, 2016

Revision: Rev.0

Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H226: Flammable liquid and vapor. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H332: Harmful if inhaled.

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