

SAFETY DATA SHEETS

This SDS packet was issued with item:

078058098

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

078391699

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).

078917014

MATERIAL SAFETY DATA SHEET

| Section I – Product Information | | | |
|------------------------------------|--|---------------------|--|
| Product Name or Identity: | THIAMINE HYDROCHLORIDE 200 mg/mL, THIAMINE HYDROCHLORIDE 500 mg/mL | | |
| Manufacturer's Name: | Neogen Corporation | Emergency Phone No. | 859 254 1221 |
| | 944 Nandino Blvd. | Fax No.: | 859 255 5532 |
| | Lexington, KY 40511 | e-mail: | inform@neogen.com |
| Date Prepared or Revised: 11/15/05 | | | |

| 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 |
| BENZYL ALCOHOL 1.5% V/V | 50 ug-eye-rabbit severe irritation | | 1230 ug/Kg oral-rat |
| | | | |
| | | | |
| | | | |

| Section III – Physical Characteristics | |
|---|--|
| Boiling Point: NO DATA AVAILABLE | Specific Gravity (H ₂ O = 1): 1.06-1.10 |
| Vapor Pressure (mm Hg.): NO DATA AVAILABLE | Melting Point: N/A |
| Vapor Density (AIR = 1): NO DATA AVAILABLE | Evaporation Rate (Butyl Acetate = 1): N/A |
| Solubility in Water: SOLUBLE | |
| Appearance and Odor: CLEAR, LIGHT YELLOW, NO 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 (Materials to Avoid): ALKALIS AND ALKALINE DRUGS, OX IDIZING AND REDUCING AGENTS | | | |
| Hazardous Decomposition or Byproducts: SULFUR OXIDES AND NITROGEN OXIDES | | | |
| Hazardous Polymerization | May Occur | | Conditions to Avoid: NONE KNOWN |
| | Will Not Occur | X | |

| Section VI – Health Hazard Data | | | |
|--|---|--|--------------------|
| Route(s) of Entry: | Inhalation-Minor | Skin-Minor | Ingestion-Primary |
| Health Hazards (Acute and Chronic) | None known-essential nutrient | | |
| Carcinogenicity: | NTP-Non-carcinogenic (National Toxicology Program) | IARC Monographs (International Agency for Research in Cancer) | OSHA Regulated-Yes |
| Signs and Symptoms of Exposure: None known | | | |
| 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 EXHUAUST | Special: |
| | Mechanical (General): | Other: |
| Protective Gloves: RUBBER GLOVES | | Eye Protection: SAFETY GOGGLES OR GLASSES |
| Other Protective Clothing or Equipment: NOT NECESSARY | | |
| 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): **Thiamine Hydrochloride 500mg/mL**
- Product Part Number(s): **09083**
- 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

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 |
| Thiamine HCl | 50.00% | 67-03-8 | 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 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.
 - Parenteral administration of thiamine hydrochloride has resulted in anaphylactic shock.

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.
- 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).
- 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: Not 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

- None known

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- May include carbon oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for mixture
- ATEmix = 6,667 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 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.

SECTION 12: Ecological information

12.1 Toxicity

Benzyl alcohol

Toxicity to fish

LC₅₀ – *Lepomis macrochirus* (Bluegill) = 10 mg/L-96h

LC₅₀ – *Pimephales promelas* (Fathead minnow) = 460 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

EC₅₀ – *Daphnia magna* (Water flea) = 55 mg/L-24h

EC₅₀ – *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.

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.

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
-

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: 59051-9083-5

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 |

SECTION 16: Other information

Document Number: SDS-9039, Thiamine Hydrochloride

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.

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

1.1 Product identifier

- Product Name(s): **Thiamine Hydrochloride 500mg/mL**
- Product Part Number(s): **09083**
- 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

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 |
| Thiamine HCl | 50.00% | 67-03-8 | 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 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.
 - Parenteral administration of thiamine hydrochloride has resulted in anaphylactic shock.

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.
- 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).
- 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: Not 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

- None known

10.5 Incompatible materials

- None known

10.6 Hazardous Decomposition Products

- May include carbon oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for mixture
- ATEmix = 6,667 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 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.

SECTION 12: Ecological information

12.1 Toxicity

Benzyl alcohol

Toxicity to fish

LC₅₀ – *Lepomis macrochirus* (Bluegill) = 10 mg/L-96h

LC₅₀ – *Pimephales promelas* (Fathead minnow) = 460 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

EC₅₀ – *Daphnia magna* (Water flea) = 55 mg/L-24h

EC₅₀ – *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.

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.

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
-

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: 59051-9083-5

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 |

SECTION 16: Other information

Document Number: SDS-9039, Thiamine Hydrochloride

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.