



# SAFETY DATA SHEET

## BOVitalize® (U.S.)

US Distribution: Bimeda Inc.

[www.BimedaUS.com](http://www.BimedaUS.com)

T 630-928-0361

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Document No. 001  
Effective Date: 09/01/2023

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## BOVitalize® (U.S.)

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>SDS Name:</b>	BOVitalize®
<b>Synonyms:</b>	
<b>Product Use:</b>	Oral Veterinary vitamin and mineral supplement.
<b>Description:</b>	Not for human use.
<b>Manufactured by:</b>	AVL/Solvat Animal Health 7226- 107 <sup>th</sup> Avenue South East Calgary, Alberta Canada T2C5N6
<b>US Distribution:</b>	Bimeda Inc. <a href="http://www.BimedaUS.com">www.BimedaUS.com</a> T 630-928-0361 F 630-928-0362
<b>Manufacturer Phone Number:</b>	(403) 456-2245, 1-877-456-2755
<b>Manufacturer Website(s):</b>	All Safety Data Sheets are available via our AVL or Solvet website at: <a href="https://avetlabs.com/">https://avetlabs.com/</a> <a href="https://solvet.ca/">https://solvet.ca/</a>
<b>Manufacturer Email:</b>	orders@avetlabs.com
<b>Emergency Number:</b>	1-866-531-8896 (Rocky Mountain Poison and Drug Center) 1-800-366-5288 (Product Support/Technical Services)
<b>24 Hours:</b>	Medical: 1-800-498-5743 Spill/CHEMTREC: 1-800-424-9300

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	Conc (%w/w)	Classification
Copper (II) Sulfate	7758-98-7	>= 1 - < 5 %	Acute Tox. 4; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1
Zinc Sulfate	7733-02-0	>= 1 - < 5 %	Acute Tox. 4; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H400, H410; M-Factor - Aquatic Acute; M-Factor – Aquatic Chronic: 1
Sodium Selenite	231-793-3	>= 1 - < 5 %	Acute Tox. 2; Skin Irrit. 2; Eye Irrit. 2A; Skin Sens.1; Aquatic Acute 2; Aquatic Chronic 2; H300, H330, H315, H319, H317,
Vitamin E, dl-tocopheryl acetate	52225-20-4	>= 1 - < 10 %	NA
Vitamin A acetate	127-47-9	>= 1 - < 5 %	NA

### 3. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**


<b>Classification - GHS</b>	Eye irritation (Category 2A), H319 Short-term (acute) aquatic hazard (Category 3), H402 Long-term (chronic) aquatic hazard (Category 3), H412
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For the full text of the H-Statements mentioned in this Section, see Section 16.

**Label elements**

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<b>Hazard pictograms</b>	
<b>Signal Word</b>	Warning
<b>Hazard Statement</b>	H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
<b>Precautionary Statement</b>	P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention. P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**            None.

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>Inhalation</b>	After inhalation: fresh air.
<b>Eye contact</b>	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
<b>Skin contact</b>	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
<b>Ingestion</b>	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed**

No data available

### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:**

**Suitable Extinguishing Media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media:**

For this substance/mixture no limitations of extinguishing agents are given.

**BOVitalize® (U.S)****Special hazards arising from the substance or mixture:**

Not combustible.

Ambient fire may liberate hazardous vapours.

**Advice for firefighters:**

In the event of fire, wear self-contained breathing apparatus.

**Further Information:**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H<sup>+</sup>, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

**Reference to other sections**

For disposal see section 13.

**7. HANDLING AND STORAGE****Precautions for safe handling**

For precautions see section 2.2.

**Conditions for safe storage, including any incompatibilities****Storage conditions**

Tightly closed.

Recommended storage temperature see product label.

Storage class (TRGS 510): 12: Non Combustible Liquids

**Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION****Control parameters**

No occupational exposure limits known.

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### Exposure controls

<b>Appropriate engineering controls</b>	Change contaminated clothing. Wash hands after working with substance.
<b>Eye / face protection</b>	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
<b>Skin protection</b>	<p>This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a>).</p> <p>Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: &gt; 480 min Material tested: KCL 741 Dermatrill® L</p> <p>This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a>).</p> <p>Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: &gt; 480 min Material tested: KCL 741 Dermatrill® L</p>
<b>Body protection</b>	Protective Clothing
<b>Respiratory protection</b>	<p>Required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.</p>
<b>Control of environmental exposure</b>	Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not Applicable
<b>pH:</b>	ca.4.8 at 20 °C (68 °F)
<b>Melting point:</b>	No data available
<b>Freezing point:</b>	No data available
<b>Boiling point:</b>	No data available
<b>Boiling range:</b>	No data available

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<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower Flammability:</b>	No data available
<b>Or explosive limits</b>	
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Density:</b>	ca.1.02 g/m <sup>3</sup> at 20 °C (68 °F)
<b>Relative density:</b>	No data available
<b>Solubility:</b>	Soluble in water.
<b>Other safety information:</b>	No data available.

**10. STABILITY AND REACTIVITY**

**Reactivity:**  
No data available

**Chemical Stability:**  
The product is chemically stable under standard ambient conditions (room temperature).

**Possibility of hazardous reactions:**  
Violent reactions possible with:  
The generally known reaction partners of water.

**Conditions to Avoid:**  
No information available

**Incompatible Materials:**  
No data available.

**Hazardous decomposition products:**  
In the event of fire: see section 5.

**11. TOXICOLOGICAL INFORMATION****Information on toxicological effects****Mixture**

<b>Acute toxicity</b>	Acute toxicity estimate Oral - > 5,000 mg/kg (Calculation method) Symptoms: Possible symptoms:, mucosal irritations Acute toxicity estimate Dermal - > 5,000 mg/kg (Calculation method)
<b>Skin corrosion/irritation</b>	No data available
<b>Serious eye damage/irritation</b>	Mixture causes serious eye irritation.

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<b>Respiratory or skin sensitisation</b>	No data available
<b>Germ cell mutagenicity</b>	No data available.
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	No data available
<b>Specific target organ toxicity -single exposure</b>	No data available
<b>Specific target organ toxicity -repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available

### Additional Information

Other dangerous properties can not be excluded.  
Handle in accordance with good industrial hygiene and safety practice..

### Hazard Information

See Section(s) 2 and 3 for further information.

### Components

#### Copper (II) sulfate

<b>Acute toxicity</b>	LD50 Oral - Rat - male and female - 481 mg/kg (OECD Test Guideline 401) Inhalation: No data available LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402) No data available
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
<b>Serious eye damage/irritation</b>	Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405)
<b>Respiratory or skin sensitisation</b>	Freund's complete adjuvant test - Guinea pig Result: negative (OECD Test Guideline 406) The value is given in analogy to the following substances: Copper sulphate pentahydrate
<b>Germ cell mutagenicity</b>	Test Type: Ames test Test system: Salmonella typhimurium Result: negative Method: OECD Test Guideline 486 Species: Rat - male - Liver cells Result: negative Method: Mutagenicity (micronucleus test)

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	Species: Mouse - male and female - Red blood cells (erythrocytes) Result: negative
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	Possible risk of congenital malformation in the fetus. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
<b>Specific target organ toxicity -single exposure</b>	No data available
<b>Specific target organ toxicity -repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available

### Components

#### Zinc sulfate

<b>Acute toxicity</b>	LD50 Oral - Mouse - male - 926 mg/kg (OECD Test Guideline 401) Inhalation: No data available LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402) No data available
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
<b>Serious eye damage/irritation</b>	Eyes - Rabbit Result: Causes serious eye damage. (OECD Test Guideline 405)
<b>Respiratory or skin sensitisation</b>	Local lymph node assay (LLNA) - Mouse Result: negative Remarks: (ECHA)
<b>Germ cell mutagenicity</b>	Test Type: Ames test Test system: Salmonella typhimurium Result: negative Remarks: (ECHA) Species: Mouse - male and female - Red blood cells (erythrocytes) Result: negative Remarks: (ECHA)
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	No data available



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<b>Specific target organ toxicity -single exposure</b>	No data available
<b>Specific target organ toxicity -repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available

### Components

#### Sodium selenite

<b>Acute toxicity</b>	LD50 Oral - Rat - 7 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Lungs, Thorax, or Respiration: Dyspnea. Diarrhea (RTECS) LC50 Inhalation - Rat - male and female - 4 h - > 0.052 - 0.51 mg/l - dust/mist (OECD Test Guideline 403) Dermal: No data available
<b>Skin corrosion/irritation</b>	Skin - human keratinocytes Result: irritating (OECD Test Guideline 439)
<b>Serious eye damage/irritation</b>	No data available
<b>Respiratory or skin sensitisation</b>	Local lymph node assay (LLNA) - Mouse May cause allergic skin reaction. (OECD Test Guideline 429)
<b>Germ cell mutagenicity</b>	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster fibroblasts Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative  Test Type: Mutagenicity (mammal cell test): chromosome aberration. Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal Result: negative Remarks: (ECHA)
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	No data available

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<b>Specific target organ toxicity -single exposure</b>	No data available
<b>Specific target organ toxicity -repeated exposure</b>	No data available
<b>Aspiration hazard</b>	No data available

**Additional information**

Salivation, Tremors, Alopecia., Vomiting, Dermatitis

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

The following applies to selenium compounds in general: strong irritant effect on mucous membranes, especially in the eye and in the respiratory tract (bronchopneumonia, pulmonary oedema); selenium acts as an enzyme toxin already after the absorption of small doses; typical garlic odour of perspiration and breath; dermatitis is possible; long- term exposure results in impairments in the intermediary metabolism; toxic effect on liver, kidneys, urinary tract, gastrointestinal tract, spleen, bone marrow, heart, nerves (paralysis symptoms). Selenium is an essential trace element for man.

**After absorption:**

Other dangerous properties can not be excluded. We have no description of any toxic symptoms. This substance should be handled with particular care.

**12. ECOLOGICAL INFORMATION****Toxicity****Mixture**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**BOVitalize® (U.S)****Components****Copper(II) sulphate**

Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) –  
0.032 mg/l - 96 h  
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates static test EC50 –  
Daphnia magna (Water flea) - 0.092 mg/l - 48 h  
(OECD Test Guideline 202) Remarks: (anhydrous substance)

**Zinc sulphate**

Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) -  
0.330 mg/l - 96 h  
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

**Sodium Selenite**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) -  
1.7 mg/l - 96 h  
Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

Bioaccumulation Lepomis macrochirus - 120 d - 10 µg/l(Sodium selenite)

Bioconcentration factor (BCF): 1,850 available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers or contact us there if you have further questions.

**14. TRANSPORT INFORMATION****TDG**

Not regulated as a dangerous good

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**Further information**

Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION**

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The metallic component as a free metal or metal compound is regulated as follows:

**U.S. FEDERAL REGULATIONS**

**TSCA (TOXIC SUBSTANCE CONTROL ACT) listed:** Zinc, Copper and Selenium and zinc, copper and selenium compounds

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** No RQ is assigned, although the class is a CERCLA hazardous substance.

**EPCRA (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT):**

302 EXTREMELY HAZARDOUS SUBSTANCE TPQ: Not EHS

304 EXTREMELY HAZARDOUS SUBSTANCE RQ: Not EHS

311/312 HAZARD CATEGORIES: Acute: No Chronic: No Fire: No Pressure: No

Reactivity: No

313 REPORTABLE INGREDIENTS: Zinc, Copper, Selenium cmpds N987 >1.0% by weight; Zinc as dust or fume >1.0% by weight

**CLEAN AIR ACT AMENDMENTS Section 112:**

Not listed as Hazardous Air Pollutant in Section 112 of the CAAA.

**STATE REGULATIONS:** Refer to individual state agency for information.

16. OTHER INFORMATION
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**NFPA HAZARD CLASSIFICATION HEALTH: 0 FLAMMABILITY: 1**

**REACTIVITY: 0 HMIS**

**HAZARD CLASSIFICATION HEALTH: 0 FLAMMABILITY: 1 PHYSICAL: 0**

**PROTECTION: 1B PREPARATION INFORMATION:**

- Centers for Disease Control (CDC) Agency for Toxic Substances and Disease Registry (ATSDR)
- National Fire Protection Association (NFPA)
- Hazardous Materials Information System (HMIS)
- U.S. EPA Chemical Emergency Preparedness and Prevention Office (CEPPO) List of Lists
- U.S. EPA Substance Registry Service (TSCA)
- U.S. Dept of Labor Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1000
- U.S. Dept of Transportation (DOT) 49 CFR 172.101

**Further Information:**



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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

**Revision Date: 2023-09-29**