

NEOGEN

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

1.1 Product identifier

- Product Name: Vi-Tal
- Product Part Number(s): 148178, 148179
- Brand(s): Ideal® Animal Health
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 - Use of the substance/preparation: A water vitamin, electrolyte and mineral supplement for livestock and poultry.
 - Uses advised against: See label cautions.
- 1.3 Details of the supplier of the safety data sheet
 - Name of Manufacturer: Trouw Nutrition USA, LLC for Neogen Corporation
 - Address of Manufacturer: 944 Nandino Blvd.
 - Lexington, Kentucky 40511 USA
 - Telephone: 859/254-1221 800/621-8829
 - 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)
 - Skin irritation, Cat. 2, Eye irritation, Cat 2, Toxic to reproduction, Cat. 1B, Hazardous to the aquatic environment, long-term hazard, Cat. 3
 - Classification (WHMIS 2015 HPR)
 - Skin irritation, Cat. 2, Eye irritation, Cat 2, Toxic to reproduction, Cat. 1B, Hazardous to the aquatic environment, long-term hazard, Cat. 3

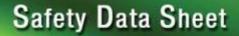
Additional information: For full text of Hazard statements: see Section 16

2.2 Label elements



- Signal Word: Danger
- Symbols: GHS07, GHS08
- Hazard phrases
 - Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. Harmful to aquatic life with long-lasting effects
- Precautionary Phrases

Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.
If on skin: Wash with plenty of soap and water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
Store locked up.





SECTION 2: Hazards identification (continued)

Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

- 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
Sodium chloride	20-50%	7647-14-5	H319	GHS07
Potassium chloride	10-20%	7447-40-7	H315, H319	GHS07
Niacinamide 99%	1-5%	98-92-0	H319	GHS07
Retinyl-acetate	0.5-1%	127-47-9	H315, H360	GHS07, GHS08
Vitamin K, 33% MSBC	0.5-1%	130-37-0	H315, H319,	GHS07, GHS09
China			H400, H410	

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

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.

- Contact with skin

Remove contaminated clothing.

Rinse affected area with plenty of 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. Remove contact lenses, if present and easy to do. Continue rinsing.

Irrigate eyes thoroughly while lifting eyelids.

Seek medical advice if necessary.

- Ingestion
 - Do not induce vomiting.

Do not administer anything not explicitly authorized by a medical professional.

If medical advice is needed, have product container or label at hand.

- Inhalation

If breathing is difficult, remove victim 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.
 - Product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air.



SECTION 5: Fire-fighting measures (continued)

- Fires may start or gets worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.
- 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.
 - Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
- 5.4 Hazardous Combustion Products
 - May include carbon oxides.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
 - Shut off all ignition sources.
 - Use non-sparking hand tools.
 - If there are no contraindications, spray powder with water to prevent the formation of dust.
 - Wear protective clothing as per Section 8.
 - 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
 - Sweep up and shovel.
 - Place in sealable container.
 - Seal containers and label them.
 - Seek expert advice for removal and disposal of all contaminated materials and wastes.
- 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 dust.
 - Avoid prolonged contact with skin and eyes.
 - Do not eat, drink, or smoke when using this product.
 - Remove contaminated clothing and personal protective equipment before entering places in which people eat.
 - Wash hands thoroughly after using this substance.
 - Avoid leakage of product into the environment.
- 7.2 Conditions for safe storage, including any incompatibilities
 - Store only in original container.
 - Store the containers sealed, in a well-ventilated place, away from direct sunlight.
 - Keep out of reach of children.
- 7.3 Specific end use(s)
 - A water vitamin, electrolyte and mineral supplement for livestock and poultry.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
 - During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate otherwise classified (PNOC) respirable fraction: 3mg/m³; PNOC inhalable fraction: 10 mg/m³). For values above these limits, use a P-type filter, whose class (1, 2, or 3) must be chosen according to the outcome of the risk assessment.



SECTION 8: Exposure controls/personal protection (continued)

8.2 Exposure controls

- Engineering controls should be provided to prevent the need for ventilation.
- No respiratory protection is needed if ventilation is adequate, otherwise wear an approved NIOSH N95 dust mask.
- Wear protective gloves according to the concentration and amount of dangerous substance at the specific workplace.
- 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.
- Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Straw yellow powder
- Odor: Characteristic
- pH: Not applicable
- Melting Point/Range: Not determined
- Boiling Point/Range: Not applicable
- Flashpoint: No information available
- Evaporation Rate: Not applicable
- 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: No information available
- Viscosity: No information available
- Explosive Properties: Product may form explosive dust/air mixtures
- 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
- 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 in particular. However the usual precautions used for chemical products should be respected.
- 10.5 Incompatible materials
 - None known
- 10.6 Hazardous Decomposition Products
 - None known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for mixture.
- ATEmix = Not determined



- Contact with skin
 - Causes skin irritation.
 - Symptoms may include: irritation, erythema, edema, dryness and chapped skin.
- Contact with eyes
 - Causes serious eye irritation.
 - Symptoms may include: rubescence, edema, pain and lachrymation.
- Ingestion

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- May cause health problems, including stomach pain and sting, nausea and sickness.
- Inhalation

May cause irritation in sensitive individuals.

- Carcinogenicity

Listed in the National Toxicology Program (NTP) 13th Report on Carcinogens as Reasonably Anticipated to cause cancer in humans: Sulfato de cobalto, CAS No. 10124-43-3. 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

This product has a teratogenic effect on human beings: damages fertility and/or has toxic effects on fetus development. There is sufficient evidence to make us believe that the substance contained in the product is likely to affect the embryo-fetal development and/or the fetus development.

SECTION 12: Ecological information

- 12.1 Toxicity
 - This product is classified as hazardous to the environment and aquatic organisms. In the long term, it has negative effects on the aquatic environment.
- 12.2 Persistence and degradability
 - No information available
- 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 mixture 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.
 - Product residues should be considered special hazardous waste.
 - 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



SECTION 14: Transport information (continued)

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 label:

KEEP OUT OF REACH OF CHILDREN For veterinary use only

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 following components are subject to reporting levels established by SARA Title III, Section 313: Nickel sulfate (CAS No. 7786-81-4), Threshold Value, 1%.

<u>SARA 311/312</u> No SARA Hazards

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

State Right-to-Know

Massachusetts Silicon dioxide, CAS No. 7631-86-9 Starch, CAS No. 9005-25-8 Nickel sulfate, CAS No. 7786-81-4

New Jersey Nickel sulfate, CAS No. 7786-81-4 Chloramphenicol, CAS No. 56-75-7



SECTION 15: Regulatory information (continued)

Pennsylvania Silicon dioxide, CAS No. 7631-86-9 Starch, CAS No. 9005-25-8 Nickel sulfate, CAS No. 7786-81-4

California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: Cobaltous sulfate, CAS No. 10124-43-3

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)
 Non-Domestic Substances List (NDSL)
 Not listed

SECTION 16: Other information

Document Number: SDS-9013, Vi-Tal Date of Preparation: March 11, 2016 Revision: Rev. 1 Replaces: March 9, 2016

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H315: Causes skin irritation. H319: Causes serious eye irritation. H360: May damage fertility or the unborn child. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long-lasting effects.

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.