VETPAK SAFETY DATA SHEET

Section 1: Identification of the Substance or Mixture and of the Supplier

Product Name: Thiamine B1

Other Names: Thiamine Hydrochloride, Vitamin B1

Recommended Use: Additive for animal nutrition to be used in feed; For the fortification of foods; Ingredient for pharmaceutical products.

Company Details: Vetpak Ltd.

Address: 249 Bruce Berquist Dr, Te Awamutu 3800.

Telephone Number: (07) 870 2024

Emergency Telephone Number: (0800) 764-766 24 hours. National Poisons Centre, Department of Preventative and Social Medicine, University of Otago, P O Box 913, Dunedin, New Zealand.
(07) 870 2024 Vetpak. 8.00am to 5.00pm Monday to Friday except public holidays.

Date of Preparation: 31st July 2019

Section 2: Hazards Identification

STATEMENT OF HAZARDOUS NATURE

This product is generally recognized as safe (non-hazardous) IN THIS FORM AND AT THIS STRENGTH. Handle correctly and as directed by this SDS.

This is the products **end** use.

HAZARD LABELLING WARNING
N/A

HAZARD CLASSIFICATION AND STATEMENTS

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
N/A				
N/A				

Section 3: Composition / Information on Ingredients:

COMPOSITION:

Pure Substance	CAS Number	Proportion
Thiamine hydrochloride	67-03-8	>98%

Section 4: First Aid Measures:

Swallowed: Rinse mouth, then drink plenty of water.

Skin: Wash skin with soap and water.

Eye: Flush eyes as a precaution.

Inhaled: Move to fresh air. Get medical attention for any breathing difficulty.

Workplace Facilities: Ensure an eye bath and washroom facilities are available.

Notes for Medical Personnel:

Phone 07-870-2024 Fax: o7-870-2032 e-mail info@vetpak.co.nz Web: www.vetpak.co.nz

Section 5: Fire Fighting Measures

Type of Hazard: Not considered to be an explosions hazard or to be a fire hazard.

Fire Hazard Properties: Formation of corrosive gases by combustion.

Extinguishing Media & Methods: Use means suitable for extinguishing surrounding fire.

Recommended Protective Clothing: Fire-fighters should wear full protective clothing and self-contained breathing apparatus.

Section 6: Accidental Release Methods

Procedures to be covered: Vacuuming or wet sweeping to avoid dust dispersal. Containerise for reclamation of disposal. Prevent entry to drains and watercourses.

Section 7: Handling and Storage

Handling: Wear Personal Protective Equipment (Section 8). Do not breathe dust. Do not ingest.

Storage: Keep in, original, tightly closed container. Store in a cool, dark, dry, well ventilated area.

Section 8: Exposure Controls / Personal Protection

Workplace Exposure Standards: TWA WES: 3mg/m3

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposures limits.

Personal Protective Equipment (PPE): RESPIRATORY: dust mask in case of high dust concentrations. SKIN: gloves and overalls. EYE: safety glasses

General hygiene: Wash hands thoroughly after handling. Do not eat, drink or smoke while handling the product. Maintain eye wash and wash room facilities in work area.

Section 9: Physical and Chemical Properties

Appearance (physical state, colour etc.): White to off-white powder

Odour: Slight, characteristic

pH: 2.7 – 3.3

Melting Point/Freezing Point (ºC): 250 / -

Boiling Point (ºC): Not determined

Flash Point (ºC):

Flammability: Not flammable

Lower Flammability/Explosive Limit: >=400ºC (dust/air mix)

Upper Flammability/Explosive Limit:

Auto-ignition Temperature (ºC):

Vapour Pressure:

Vapour Density:

Relative Density:

Solubility in Water: 1000g/L (20'C)

Specific Gravity: (water = 1)

Viscosity:

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Section 10: Stability and Reactivity

Stability of the Substance: Hygroscopic. Stable under recommended storage conditions.

Conditions to avoid: Heat.

Material to avoid: Bases, Strong oxidisers.

Hazardous decomposition Products: Hydrogen chloride gas, nitrogen oxides, Sulphur oxides

Hazardous polymerization: Will not occur.

Section 11: Toxicological Information

Acute Effects:

LD50 = 3710 mg/kg (Rat)

Swallowed: May be harmful if swallowed.

Skin: May irritate skin.

Eye: May cause irritation.

Inhaled: May be harmful if inhaled.

Chronic Effects:

Chronic Toxicity: Cases of anaphylactic shock after parenteral application of Thiamin have been recorded.

Irritation/Corrosion: May cause skin irritation.

Carcinogenic Effects: Not listed as carcinogenic.

Mutagenic Effects: Not suspected of causing genetic defects.

Reproductive or developmental effects: Not known.

Section 12: Ecological Information

Potential Environmental Considerations: Very toxic to aquatic life with long-lasting effects.

Ecotoxicity in water:
LC50 (96hr) >100mg/L (*Oncorhynchus mykiss* - rainbow trout)
EC50 (48hr) >100mg/L (*Daphnia magna* – water flea)

Chronic:

Phytotoxicity: No Data

Persistence and Degradability: Persistence unlikely, Biodegradable.

Mobility: No data.

Bioaccumulation: Not likely.

BOD and COD: No Data

Products of Biodegradation: No Data

Toxicity of the Products of Biodegradation: No Data

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Section 13: Disposal Considerations

Disposal Information: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Dispose of container in accordance with local government regulations.

Section 14: Transport Information

Hazard Class: None

UN Number:

Packing Group:

Hazchem Code:

Land Transport: Check regulations

Sea Transport: Check regulations

Air Transport: Check regulations

Other Information:

Section 15: Regulatory Information

HSNO Approval Number: HSR003666

HSNO Classifications:
None

Regulatory status: EPA New Zealand Approval Code HSR003666

Section 16: Other Information

Interpretation and Abbreviations
Controls applying to a substance:

- * denotes that changes have been made to these controls, further information on these changes is located in the transfer notice for that substance,
- (R) abbreviation for the term Regulation of the Hazardous Substances regulations

AICS – Australian Inventory of Chemical Substances
AOX – Absorbable organic halogens.
APF – Assigned Protection Factor.
BOD – Biochemical Oxygen Demand China
COD – Chemical Oxygen Demand
DSL – Canadian Domestic Substances List.
EC50 – Half maximal effective concentration. The concentration of a toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.
EINECS – European Inventory of Existing Commercial Chemical Substances.
ENCS – Japanese Existing and New Chemical substances.
IARC – International Agency for Research on Cancer.
IDLH – Immediately Dangerous to Life or Health Concentrations.
ISHL – Japanese Industrial Safety and Health Law List of Chemicals.
LOEL – Lowest Observed Effect Level.
LD^{50} – Lethal Dose sufficient to kill 50 percent of the test population within a certain time
LD_{LO} – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).
MAK – Maximum workplace concentration in the workplace air that generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance when a person is repeatedly exposed during long periods, usually 8 hours daily, 40hour working week).
NOAA – National Oceanic and Atmospheric Administration.

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NOEC – No Observed Effect Concentration.
NTP – National Toxicology Program.
NZIoC – New Zealand Inventory of Chemicals.
OECD HPV – The Organisation for Economic Co-operation and Development High Product Volume Chemicals.
PEL – Permissible exposure limit.
PPE – Personal Protective Equipment.
Prop 65 – California Proposition 65 List of Chemicals.
RTECS – Registry of Toxic Effects of Chemical substances
STEL – Short term exposure limit.
TOC – Total Organic Carbon.
TSCA – US Toxic Substances Control Act Existing Chemicals.
TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
VOC – Volatile Organic Compounds.

Date of Preparation/Review: 31 July 2019

Sources of key data used to compile the datasheet:
Manufacturers SDS
NZ EPA CCID
Health and Safety at Work (Hazardous Substances) Regulations 2017
Hazardous Substances (Minimum Degrees of Hazard) Notice 2017
Hazardous Substances (Safety Data Sheets Notice 2017
Hazardous Substances (Classification) Notice 2017
Labelling of Hazardous Substances Technical Guide 2012

DISCLAIMER
The information contained in this safety data sheet was obtained from current and reliable sources. This data is supplied without warranty, expressed or implied, regarding its correctness and accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product.

END OF SDS

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