

VETPAK SAFETY DATA SHEET

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

Product Name: Zinc Sulphate Heptahydrate

Other Names: Zinc Sulphate (ZnSO₄) Heptahydrate

Recommended Use: Dietary supplement, animal feeds.

Company Details: Vetpak Ltd.

Address: : 249 Bruce Berquist Drive Te Awamutu.

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. Phone (07) 870 2024 Vetpak. 8.00am to 5.00pm Monday to Friday except public holidays.

Date of Preparation: 9th August 2019

Section 2: Hazards Identification

STATEMENT OF HAZARDOUS NATURE

This product is **HAZARDOUS IN THIS FORM AND AT THIS STRENGTH.**

Handle correctly and as directed by this SDS.

HSNO Approval Number: HSR003701

HAZARD LABELLING WARNING



HAZARD CLASSIFICATION AND STATEMENTS

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
6.1D	Acutely Toxic	Category 4	Warning	H302 H312 Harmful if swallowed, in contact with skin
6.9B	Harmful to human target organs or systems	Category 2	Warning	H371 May cause damage to organs
8.3A	Corrosive to ocular tissue	Category 1	Danger	H318 Causes serious eye damage
9.1A	Very ecotoxic in the aquatic environment	Category 1	Warning	H400 Very toxic to aquatic life
9.3C	Harmful to terrestrial vertebrates	None	None	H433 Harmful to terrestrial vertebrates

Prevention Statements:

P102 & P103: Keep out of reach of children & Read label before use.

P260: Do not breathe dust

P264: Wash hands thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P273: Avoid release to the environment

P280: Wear protective gloves/protective clothing/eye protection/face protection

Section 3: Composition / Information on Ingredients:

COMPOSITION

Ingredient	CAS Number	% w/w	HAZARDOUS
Zinc Sulphate Heptahydrate	7446-20-0	100	Yes 6.1D; 6.9B; 8.3A; 9.1A; 9.3C

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Section 4: First Aid Measures:

Swallowed: Rinse mouth out with water. Give plenty of water to drink. DO **NOT** induce vomiting. If symptoms persist, contact a doctor.

Skin: Remove contaminated clothing. Wash affected area with non-abrasive soap and plenty of water. If irritation persists, contact a doctor.

Eye: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a poison centre or doctor / physician.

Inhaled: Remove victim from exposure to fresh air. If rapid recovery does not occur, consult a doctor.

Notes for Medical Personnel: No medical information available on medical conditions which are aggravated from exposure to this product.

Section 5: Fire Fighting Measures

Type of Hazard: Product is a non-flammable solid.

Fire Hazard Properties: May produce irritating and/or toxic fumes, including oxides of Sulfur and oxides of Zinc. Contain runoff from fire control or dilution water - runoff may pollute waterways.

Extinguishing Media & Methods: In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions.

Recommended Protective Clothing: Fire fighters should wear a self contained breathing apparatus and full protective clothing along with protective equipment.

Section 6: Accidental Release Methods

Emergency Procedures: Personnel involved in the clean up should wear full protective clothing. Eliminate all sources of ignition. Increase ventilation. Contain spill if safe to do so. Avoid generating dust. DO NOT let product reach drains or waterways. If product does enter a waterway, advise local and regional authorities.

Methods and Materials for Containment and Clean up. Contain and sweep / shovel up spills with dust-binding material or use an industrial vacuum cleaner. Transfer to a dry, suitable labelled container and hold for safe disposal. Once pick-up is complete, flush spill site with plenty of water to eliminate any residue. Hold contaminated water for treatment.

Section 7: Handling and Storage

Handling: Ensure an eye bath and running water are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Storage: Store in original labelled packaging and in a cool dry well ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from foodstuffs and incompatible materials (water, acids).

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Section 8: Exposure Controls / Personal Protection

Workplace Exposure Standards:

No exposure standard is established. The exposure standard for dust not otherwise specified is 8hr TWA 10mg/m³ (inhalable dust) and 3mg/m³ (respirable dust).

Engineering Controls: A system of local and / or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Protective Equipment (PPE): RESPIRATORY: Wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. EYE/FACE: Chemical goggles. HAND: Impervious gloves. SKIN/BODY: Overalls, safety shoes.



General hygiene: Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

Appearance (physical state, colour etc.): White. To slightly yellow, crystalline solid

Odour: Odourless

pH: 4 - 6 (50 g/L @ 20 °C)

Melting Point/Freezing Point (°C): 100 / -

Boiling Point (°C): >500 °C (Decomposes)

Flash Point (°C):

Flammability: Not flammable

Lower Flammability/Explosive Limit:

Upper Flammability/Explosive Limit:

Auto-ignition Temperature (°C):

Vapour Pressure:

Vapour Density:

Relative Density:

Solubility in Water: Very soluble. (58g/100ml at 25 °C)

Specific Gravity: 1.97 (water = 1)

Viscosity:

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Section 10: Stability and Reactivity

Stability of the Substance: Product is stable under normal conditions of use and storage.

Conditions to avoid: Avoid excessive heat, dust generation, static discharges, moisture and high temperatures.

Material to avoid: Incompatible with water / acids.

Hazardous decomposition Products: Fire/decomposition may produce irritating and/or toxic fumes, including oxides of Sulfur and oxides of Zinc. Reacts with water to form Sulphuric acid.

Hazardous polymerization: Does not occur.

Section 11: Toxicological Information

Acute Effects:

LD50, Rat: 1,260 mg/kg (Oral)

Swallowed: Ingestion of this product may cause headache, nausea and vomiting. Ingestion of large doses may cause anaemia and abdominal pain, diarrhoea and in severe cases, vomiting of blood.

Skin: Causes itchiness and reddening of contacted skin.

Eye: Causes stinging and reddening of eyes and watering may become copious. Lengthy exposure or delayed treatment may cause permanent damage.

Inhaled: Long term inhalation of high amounts of any nuisance dust may overload lung clearance mechanism.

Chronic Effects:

Chronic Toxicity: May cause damage to organs through prolonged or repeated exposure.

Irritation/Corrosion: Skin irritation

Carcinogenic Effects: Not listed as carcinogenic

Mutagenic Effects: Not suspected of causing genetic defects

Reproductive or developmental effects: Unlikely.

Section 12: Ecological Information

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

Data organisation:

LC50 103 ug/l Oncorhynchus mykiss Rainbow trout

Author(s): Alsop, D.H., and C.M. Wood Publication Year: 1999 Title: Influence of Waterborne Cations on Zinc Uptake and Toxicity in Rainbow Trout, Oncorhynchus mykiss Reference Source:

Can.J.Fish.Aquat.Sci. 56(11):2112-2119 [ECOTOX]

Chronic:

Phytotoxicity: No Data

Persistence and Degradability: Persistence unlikely.

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: Dispose of in accordance with all local, and regional regulations.

Section 14: Transport Information

Hazard Class: 6.1D; 6.9B; 8.3A; 9.1A; 9.3C

UN Number: 3077

Packing Group: III

Hazchem Code: 2Z

Land Transport: Check regulations

Sea Transport: Check regulations

Air Transport: Check regulations

Other Information:

Section 15: Regulatory Information

HSNO Approval Number: HSR00

HSNO Classifications:

6.1D (Acutely toxic)

6.9B (Harmful to human target organs or systems)

8.3A (Corrosive to ocular tissue)

9.1A (Aquatic toxicity)

9.3C (Harmful to terrestrial vertebrates)

Regulatory status: EPA New Zealand Approval Code HSR003701

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.

LD⁵⁰ – 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).

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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.

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: 9th August 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