

VETPAK SAFETY DATA SHEET

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

Product Name: Cobalt Sulphate Heptahydrate

Other names: Cobalt Sulphate, Cobalt (II) Sulphate, Cobaltous Sulphate

Recommended Use: As a nutritional dietary trace element supplement in livestock.

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: 2nd 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.

EPA New Zealand Approval Number: HSR003620

HAZARD LABELLING WARNING



HAZARD CLASSIFICATION AND STATEMENTS

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
6.1D	Acute Toxicity (All)	Category 4	Warning	H302 H312 H332 Harmful if swallowed, in contact with skin, if inhaled
6.3A	Skin Irritation	Category 2	Warning	H315 Causes skin irritation
6.4A	Serious eye damage/ eye irritation	Category 2	Warning	H319 Causes serious eye irritation
6.5A	Respiratory sensitiser	Category 1	Danger	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
6.5B	Contact sensitiser	Category 1	Warning	H317 May cause an allergic skin reaction
6.7B	Suspected human carcinogen	Category 2	Warning	H351 Suspected of causing cancer
6.8B	Suspected human reproductive or developmental toxicant	Category 2	Warning	H361 Suspected of damaging fertility or the unborn child
6.9A	Harmful to human target organs or systems	Category 1	Danger	H370 H372 Causes damage to organs
9.1A	Aquatic toxicity	Category 1	Warning	H400 Very toxic to aquatic life
9.3B	Ecotoxic to terrestrial vertebrates	None	None	H432 Toxic to terrestrial vertebrates

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Prevention Statements:

P102: Keep out of reach of children.
P103: Read label before use.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe mist/vapours/spray
P261: Avoid breathing dust
P264: Wash hands thoroughly after use.
P270: Do not eat, drink or smoke when handling this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves / clothing and eye / face protection.

Section 3: Composition / Information on Ingredients:

COMPOSITION

Ingredient	CAS Number	% w/w	HAZARDOUS
Cobalt Sulphate Pentahydrate	10026-24-1	>99	Yes 6.1D; 6.3A; 6.4A; 6.5A; 6.5B; 6.7B; 6.8B; 6.9A; 9.1A; 9.3B

Section 4: First Aid Measures:

Swallowed: Rinse mouth, then drink plenty of water. Do NOT induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.

Skin: Remove contaminated clothing and shoes immediately. Flush skin and hair with running water for several minutes; Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.

Eye: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice - Obtain immediate medical care.

Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Apply resuscitation if victim is not breathing. Administer oxygen if breathing is difficult.

Workplace Facilities: Ensure an eye bath and running water are available and ready for use.

Notes for Medical Personnel: Treat symptomatically based on individual reactions of patient and judgment of doctor.

Aggravated medical conditions caused by exposure: Prolonged inhalation of cobalt dust, fumes or mist containing cobalt may cause serious respiratory illness. There are references in literature associating cobalt with interstitial fibrosis, a disease which can be fatal. Allergic or hypersensitive persons may develop a skin reaction or obstructive lung disease.

Section 5: Fire Fighting Measures

Type of Hazard: Product is non-flammable.

Hazards from Combustion Products: Non-combustible solid. Material will not burn or explode. Incompatible materials include strong oxidising agents, tert-butyl hydroperoxide and sources of ingestion. Decomposes on heating emitting toxic fumes. Hazardous decomposition products include oxides of sulphur.

Extinguishing Media & Methods: In case of fire, use appropriate 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.

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Section 6: Accidental Release Methods

Emergency Procedures: Personal involved in the clean up should wear full protective clothing. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Do not allow product to reach drains, sewers or waterways. If the product does enter a waterway, advise your local government authority.

Methods and Materials for Containment and Cleanup: Contain and sweep / shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and hold for disposal. Once pick up is complete, flush spill site with water to eliminate any residue. In case of water contamination, precipitate with CAOHLIME.

Section 7: Handling and Storage

Handling: Ensure an eye bath and safety shower are available and ready for use. Handle in accordance with good industrial hygiene. And safety practice. Wash thoroughly after handling.

Storage: Store in the original, labelled container with the lid tightly closed. Store in a cool, dry, well ventilated area. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect from physical damage. Store away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Workplace Exposure Standards: 8hr TWA 0.05 mg/m³.

Engineering Controls: Ensure adequate local or general exhaust ventilation to maintain airborne concentrations of dust, vapour or fumes below the standards.

Personal Protection:

RESPIRATOR: Wear a positive pressure air supplied full-face respirator where dusts/vapours are generated and engineering controls are inadequate (AS1715/1716).

EYES: Safety glasses with side shields (AS1336/1337).

HANDS: Wear rubber or PVC gloves (AS2161).

CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).



General hygiene: Wash hands thoroughly after handling. Do not eat, drink or smoke while handling the product.

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Section 9: Physical and Chemical Properties

Appearance (physical state, colour etc.): Red to brown powder or crystals

Odour: Odourless

pH: 3 – 5 (5% solution)

Melting Point/Freezing Point (°C): 96 /

Boiling Point (°C): 788

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: Soluble

Specific Gravity: 1.95 (water = 1)

Viscosity:

Section 10: Stability and Reactivity

Stability of the Substance: Stable under normal conditions of use and storage.

Conditions to avoid: Avoid dust generation, moisture, extreme heat and high temperatures.

Material to avoid: Avoid foodstuffs and sources of ignition.

Hazardous decomposition Products: Sulphur oxides.

Hazardous polymerization: Does not occur.

Section 11: Toxicological Information

Acute Effects:

Oral LD₅₀ Rat: 582mg/kg.

Sheep given a single oral dose were killed at quantities between 15g and 55g, the average lethal dose being 330mg/kg of hydrated cobalt sulphate.

Swallowed: May cause gastrointestinal irritation with nausea, vomiting and diarrhoea.

Skin: Prolonged or repeated contact may cause irritation and / or dermatitis. May cause skin sensitization (an allergic reaction) which becomes evident upon re-exposure to the product.

Eye: Causes irritation, redness and pain.

Inhaled: Causes respiratory tract irritation.

Chronic Effects: Chronic exposure may result in damage to the kidneys, lungs, heart, thyroid, and skin. May impair fertility. Possible risk of irreversible effects

Chronic Toxicity:

Irritation/Corrosion: Skin allergy and irritation

Carcinogenic Effects: May cause cancer by inhalation.

Mutagenic Effects: Not suspected of causing genetic defects

Reproductive or developmental effects: May cause damage through prolonged dermal exposure

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Section 12: Ecological Information

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

Ecotoxicity in water:

LC50/48hr : 5.15mg/L Daphnia Magna Water Flea

LC50/48hr : 73.7mg/L Pimephales Promelas Fathead Minnow

Chronic:

Phytotoxicity: No Data

Persistence and Degradability: No data

Mobility: No data

Bioaccumulation: Not established.

BOD and COD: No Data

Products of Biodegradation: No Data

Toxicity of the Products of Biodegradation: No Data

Section 13: Disposal Considerations

Disposal Information: Rinse empty container before disposal – add rinsings to use solutions. Dispose of in an authorised landfill and in accordance with local/regional/national regulations. Avoid contamination of any waterway with chemical or empty container.

Section 14: Transport Information

Hazard Class: 6.1D; 6.3A; 6.4A; 6.5A; 6.5B; 6.7B; 6.8B; 6.9A; 9.1A; 9.3B

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: HSR003620

HSNO Classifications:

6.1D (Acutely toxic)

6.3A (Irritating to the skin)

6.4A (Irritating to the eye)

6.5A (Respiratory sensitiser)

6.5B (Contact sensitiser)

6.7B (Suspected human carcinogen)

6.8B (Suspected human reproductive or developmental toxicant)

6.9A (Harmful to human target organs or systems)

9.1A (Aquatic toxicity)

9.3C (Vertebrate toxicity)

Regulatory status:

Section 16: Other Information

Interpretation and Abbreviations

Controls applying to a substance:

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- * 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.
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_{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.
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: 2nd 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