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SECTION 1 – IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Identifier

Product Name	Potassium Sorbate
Other Names	Sorbic acid, potassium salt; Potassium (E,E)-hexa-2,4-dienoate; 2,4-Hexadienoic acid, potassium salt
Proper Shipping Name	Potassium Sorbate
Other means of Identification	None

Relevant identified uses of the substance or mixture

Relevant identified uses	A preservative inhibiting the growth of yeasts, moulds and some bacteria in a wide range of food, beverage, pharmaceutical and cosmetic products.

Details of the supplier of the safety data sheet

Registered company name	Vetpak Limited
Address	249 Bruce Berquist Dr, Te Awamutu 3800.
Telephone	(07) 870 2024
Website	www.vetpak.co.nz
Email	sales@vetpak.co.nz

Emergency telephone numbers

Association/ Organisation	New Zealand National Poison information centre
Emergency telephone number	0800 764 766 (07) 870 2024 Vetpak. 8.00am to 5.00pm Monday to Friday except public holidays.
Other emergency telephone numbers	New Zealand emergency services 111

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification:

Classed as a dangerous good for transport and logistics

Hazardous according to the criteria of the Globally Harmonised System of classification and labelling of chemicals (GHS)

Label pictograms

GHS label elements	
Signal Word	WARNING

Hazard statements

HSNO	Hazard Code	GHS Category	Hazard Statement
6.1E	H 303	Category 5	May be harmful if swallowed

6.4A	H 319	Category 2	Can cause eye irritation

Precautionary statements prevention

P102	Keep out of reach of children
P103	Read label before use
P264	Wash hands and clothing thoroughly after handling.
P280	Wear protective gloves/eye protection/ face protection

Precautionary statement responses

P101	If medical advice is needed, have product container or label at hand.
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.

Precautionary statement disposal

P501	Disposal should be through a suitably qualified contractor following the EPA guidelines

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures

CAS Number	% (weight)	Name
24634 – 61 – 5	100	Potassium Sorbate

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

Eye contact	➢ 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. ➢ If eye irritation persists, get medical advice/attention.
Skin contact	➢ Wash with plenty of soap and water. ➢ Take off contaminated clothing and wash it before reuse. ➢ If skin irritation occurs, get medical advice/attention.
Inhalation	➢ Remove victim to fresh air and keep at rest in a position comfortable for breathing. ➢ If respiratory symptoms persist, get medical advice/attention. ➢ Give artificial respiration if victim is not breathing.
Ingestion	➢ Rinse mouth, and then drink a glass of water. Do not induce vomiting. Get medical advice/attention if you feel unwell. ➢ Never give anything by mouth to an unconscious person.
Advice to the doctor	Treat symptomatically and supportively. Most important symptoms and effects, both acute and delayed: None known.

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing media	➢ Use dry chemical, Carbon dioxide (CO2) ➢ alcohol-resistant foam or water spray for extinction ➢ DO NOT use water jet as it may spread the fire

Flammability Conditions	➢ Combustible solid which burns but propagates flame with difficulty

Advice for fire fighters

Fire fighting	➢ Alert fire brigade and tell location and nature of hazard ➢ Wear breathing apparatus plus protective gloves in the event of a fire ➢ Prevent spillage from entering the waterways or drains ➢ Consider evacuation (or protect in place) ➢ Fight the fire from a safe distance and adequate cover
Fire/explosion hazard	➢ Combustible solid which burns but propagates flame with difficulty. ➢ Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. ➢ Dry dust can also be charged electrostatic ally by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by bonding and grounding. ➢ Combustion products include: carbon monoxide (CO), carbon dioxide (CO2), potassium oxides
Special fire fighting hazards	➢ Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Protection Equipment	➢ Wear positive pressure self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firelighter's uniform may provide limited protection.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor spills	➢ Clean up all spills immediately. Stop spill if safe to do so. ➢ Avoid contact with skin and eyes. ➢ Avoid generating dust. Pick up and transfer to properly labeled containers for disposal. After cleaning, flush away traces with water.
Major spills	➢ Clear area of personnel. Control personal contact by using protective equipment. ➢ Dampen product, if necessary, to avoid dissemination of the product. ➢ Prevent spillage from entering drains, sewers or water courses. Recover product wherever possible. Put residues in labeled plastic pails or other suitable sealed containers for disposal. ➢ If contamination of drains or waterways occurs, advise emergency services
Clean Up Procedures	➢ Recover large spills for salvage or disposal. Pick up spills/residues with sand or other non-combustible absorbent material and place into containers for later disposal. Never return spills into original containers for re-use.
Containment	➢ Prevent entry into waterways, drains or confined areas. Dike far ahead of large spill for later disposal.
Decontamination	➢ Clean surface thoroughly to remove residual contamination. Wash hard surfaces with detergent to remove remaining oil film.
Environment Precaution Measures	➢ Prevent entry into drains and waterways. ➢ Dispose of any absorbent material properly according to local authority regulations

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

Safe Handling	➢ Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. ➢ Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. ➢ Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing.

	➢ Do not ingest. Use personal protective equipment as required ➢ Avoid exposure to heat and sources of ignition - No smoking.

Conditions for safe storage, including any incompatibilities

Suitable packaging	➢ Original packaging. Check that packaging is clearly labelled
Storage incompatibility	➢ Segregate from oxidizing agents.
Storage requirements	➢ Store in original packaging until ready for use. Keep containers securely sealed to protect from moisture. ➢ Store in a cool, well ventilated area out of direct sunlight. ➢ Store away from incompatible materials and dangerous goods. Protect containers against physical damage and check regularly for leaks

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Source Material Measurement Limit New Zealand WES 2020 total dust time weighted average (TWA) 10 mg/m³ New Zealand WES 2020 respirable dust time weighted average (TWA) 3 mg/m³ No exposure limits for Potassium Sorbate set by WorkSafe New Zealand

Exposure controls

Appropriate 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. Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.
Personal protection	
Eye and face protection	➢ Safety glasses with side shields ➢ Chemical goggles ➢ Contact lenses may pose a special hazard soft contact lenses may absorb and concentrate materials. ➢ Medical personal should be trained and readily available in the event of chemical exposure; they should begin eye irrigation and remove contact lenses as soon as practicable. Lenses should be removed at the first sign of eye irritation
Skin protection	Wear general protective gloves e.g. light weight rubber gloves
Hand / feet protection	As above for hands; wear appropriate footwear for the environment
Other protection	➢ Overalls ➢ PVC Aprons ➢ PVC protective gear ➢ Eyewash facilities ➢ Ensure there is ready access to a safety shower

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Solid white powder	Relative density (Water = 1)	1.36 (H2O = 1)
Odour	Odourless	Solubility in water	500 – 600gm/L

Odour threshold	Not Available	Decomposition temperature	Not available
pH	8 – 11 (5% solution)	Viscosity	Not available
Melting point (^{o}C)	270 °C	Bulk density	0.670
Boiling point (^{o}C)	132 °C	Specific gravity	3.13
Flash point (^{o}C)	Not combustible	Explosive properties	Not explosive
Evaporation rate	Not available	Oxidising properties	Not available
Flammability	Not flammable	Volatile component (% vol)	None

SECTION 10 – STABILITY AND REACTIVITY

General Information	Product is stable under normal conditions of use, storage and temperature.
Chemical stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to avoid	Avoid excessive heat, direct sunlight, static discharges, moisture, and temperature extremes
Incompatible materials	Incompatible with strong oxidizing agents, combustible materials, reducing agent and strong acids. Keep containers dry and tightly closed to avoid moisture absorption and contamination.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

General Information	Acute Oral Toxicity, Rat, LD50: 4200 mg/kg [NZ EPA CCID] Acute Dermal Toxicity, LD50: >2000 mg/kg. Acute Inhalation Toxicity, LC50: No data
Swallowed	Considered an unlikely route of entry in commercial/industrial environments. The solid/dust is of low toxicity if swallowed. Acute potassium poisoning after swallowing is rare, because vomiting usually occurs and renal excretion is fast. Potassium causes a slow, weak pulse, irregularities in heart rhythm, heart block and an eventual fall in blood pressure. Breathing initially becomes faster but the muscles of breathing eventually become paralysed. There can be loss of appetite, extreme thirst, increased volumes of urine, fever, convulsions and gastric disturbances
Eyes	Particulate/dust is slightly discomforting to the eyes
Skin	Not considered an irritant through normal use. Sorbic acid and its salts are weak sensitisers and have, occasionally, been implicated in causing contact urticaria
Inhalation	Particulate/dust is slightly discomforting to the upper respiratory tract.
Carcinogenetic	Not classified or listed by IARC, NTP, OSHA, Ca Prop65 and ACGIH
Mutagenicity	No genotoxicity potential either in vitro or in vivo.
Reproductive effects	Not available
Specific target organ toxicity	Not available

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity	Not expected to be harmful to aquatic organisms. Fish, 96h LC50: >1000 mg/L Crustacean, (Daphnia magna), 48h EC50: 750 mg/L OECD Guideline 202 Algae 72 or 96h EC50: No data.

	Lactobacillus sp. (Bacteria), 48h, EC0: >1600 mg/L
Persistence/Degradability	Readily biodegradable
Bioaccumulation Potential	Bioaccumulation is considered negligible
Environmental Impact	No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	➢ Do not allow wash water from cleaning or process equipment to enter drains ➢ It may be necessary to collect all wash water for treatment before disposal ➢ In all case disposal to sewer may be subject to local laws and regulations and these should be considered first ➢ If in doubt contact the responsible authority ➢ Contact manufacturer for recycling options or consult local or regional waste management authority for disposal ➢ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed

SECTION 14 – TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land

SECTION 15 – REGULATORY INFORMATION

Safety, health and environment regulations / legislation specific for the substance or mixture

GHS Codes	6.1E, 6.4A
National Inventory	Status - Approved
Australia – AICS	Yes
Europe – EINEC / ELINCS / NLP	Yes
New Zealand – NZIoC	Yes - All ingredients are on the inventory
Environmental Protection Authority (New Zealand)	Classified as hazardous according to the criteria of the New Zealand Hazardous Substances and New Organisms Act.
Approval Code	HSR002739

SECTION 16 – OTHER INFORMATION

While Vetpak Limited in good faith has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Vetpak Limited accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

New Zealand National Poison Information Centre: 0800 764 766
New Zealand Emergency Services: 111
Vetpak Limited: +64 7 870 2024

Definitions and abbreviations

PC – TWA	Permissible concentration – time weighted average
PC – STEL	Permissible concentration – short term exposure limit

IARC	International agency for research on cancer
ACGIH	American conference of Government Industrial Hygiene
STEL	Short term exposure limit
TEEL	Temporary emergency exposure limit
IDLH	Immediate dangerous to life or health concentration
OSF	Odour safety factor
NOAEL	No observed adverse effect level
LOAEL	Lowest observed adverse effect level
TLV	Threshold limit value
LOD	Limit of detection
OTV	Odour threshold value
BCF	BioConcentration factors

END OF SDS