

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Hakaphos SP3-15-36+5**
 Item Code:
 Product Use: Fertiliser
 Restriction of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd
 Address: 10 Firth Street
 Drury, 2113

Telephone: +64 9 294 8453
 Fax Number: +64 9 294 7272

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 24 May 2023 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Fertiliser (subsidiary) – HSR002571

Pictograms



Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Skin irritation Cat. 2	H315	Causes skin irritation.
Eye irritation Cat. 2	H319	Causes serious eye irritation.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P362	Take off contaminated clothing and wash before re-use.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.

P337 + P313	If eye irritation persists: Get medical advice/attention.
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Storage Code	Storage Statement
None allocated	

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Potassium nitrate	≥10 - ≤40	7757-79-1
Potassium hydrogensulphate	≥0.5 - ≤5	7646-93-7
Ingredients determined to be Non-Hazardous	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: call doctor/physician.
If on Skin	Take off contaminated clothing and wash before re-use. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention.
If Swallowed	Clean mouth with water and drink afterwards plenty of water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Immediately call a POISON CENTER or doctor/physician.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion:	Not applicable.
Inhalation:	Not applicable.
Skin:	Causes skin irritation.
Eyes:	Causes severe eye irritation.

Treatment: Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Non-Flammable
Hazards from combustion products	Can decompose at above 130 °C. Thermal decomposition products: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.
Suitable Extinguishing media	Water, water spray or dry chemical Do not use carbon dioxide (CO2), foam and sand
Precautions for firefighters and special protective clothing	In the event of fire, wear self-contained breathing apparatus. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

HAZCHEM CODE	None allocated
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Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Remove all sources of ignition.

Do not empty into drains.

Retain and dispose of contaminated wash water.

Use mechanical handling equipment for clean-up. Dispose of according to Local Regulations.

Section 7. Handling and Storage
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Precautions for Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Wear protective clothing as detailed in Section 8.

Precautions for Storage:

- Keep out of reach of children.
- Store away from incompatible materials described in Section 10.
- To maintain product quality, do not store in heat or direct sun areas and containers light.
- Keep away from sources of ignition - No smoking.
- Keep away from combustible material.
- Protect from contamination.
- Protect from moisture.

Section 8 Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
potassium nitrate	Workers	Inhalation	Systemic effects	36,7 mg/m3
	Workers	Skin contact	Systemic effects	20,8 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Systemic effects	10,9 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

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SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

Substance name	Environmental Compartment	Value
potassium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
	Sewage treatment plant	18 mg/l

Engineering Controls

Ensure adequate ventilation is available.

Personal Protection Equipment



Eyes	In case of dust formation: Tightly fitting safety goggles.
Hands and Skin	Gloves. Wearing of closed work clothing is recommended.
Respiratory	Breathing apparatus only if aerosol or dust is formed.
General	Do not empty into drains. Retain and dispose of contaminated wash water.

Section 9 Physical and Chemical Properties

Appearance	Crystalline
Colour	Off White
Odour	Odourless
Odour Threshold	Not available
pH	2.9, Concentration: 100 g/l (20 °C)
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	The product is not flammable.
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Bulk Density	ca. 1.310 kg/m ³
Solubilities	Soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	ca. 130 °C To avoid thermal decomposition, do not overheat.
Kinematic Viscosity	Not available
Particle Size Distribution	D50 = 230 µm D50 Tolerance range = 184 µm - 276 µm Measurement technique: Sieve analysis

Section 10. Stability and Reactivity

Stability of Substance	This material is thermally stable when stored and used as directed.
Hazardous Reactions	No known hazardous reactions.
Conditions to Avoid	Temperature 130 degrees Celsius. Heat, flames and sparks.
Incompatible Materials	Acids Bases

	Organic materials Powdered metals
Hazardous Decomposition Products	Nitrogen oxides (NOx) Ammonia

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye irritation.
Skin	Causes skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Components:

potassium nitrate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,527 mg/l

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

potassium hydrogensulphate:

Acute oral toxicity : LD50 Oral (Rat): 2.340 mg/kg

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	Not expected to adsorb on soil.
Other adverse effects	No data available.

Components:

potassium nitrate:

Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 490 mg/l

aquatic invertebrates Exposure time: 48 h

Toxicity to algae : LC50 : >= 1.700 mg/l
Exposure time: 10 d

potassium hydrogensulphate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 3.500 mg/l

Persistence and degradability

Components:

potassium nitrate:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not accumulate in organisms.

Components:

potassium nitrate:

Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: Slightly mobile in soils

Components:

potassium nitrate:

Mobility : Remarks: No data available

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse and dispose according to Local Regulations.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15 Regulatory Information

EPA Approval Code: Fertiliser (subsidiary) – HSR002571

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	Not required
Secondary Containment	Not required
Restriction of Use	None

Section 16 Other Information

Glossary

Cat Category
EC₅₀ Median effective concentration.

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EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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