

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Van Iperen Monopotassium Phosphate (MKP) Horticultural Grade**

Product Use: Substance used as such, in formulation or in formulation of products for : Hire resistant powder, Horticulture 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: 20 January 2022

Section 2. Hazards Identification

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

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms



Signal Word: **Warning**

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

Prevention Code	Prevention Statement
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
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.

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
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Ingredients	Wt%	CAS NUMBER.
Potassium dihydrogenorthophosphate	>99	7778-77-0

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: Get medical advice.
If on Skin	Rinse skin with water/shower. If skin irritation occurs: get medical advice/attention.
If Swallowed	Rinse mouth. 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. Seek medical attention if needed.
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: Causes serious eye irritation.

Section 5. Fire Fighting Measures
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Hazard Type	Non Flammable
Hazards from combustion products	None known.
Suitable Extinguishing media	CO2. Powders. Foam. Water spray.
Precautions for firefighters and special protective clothing	Use water stream to cool containers. Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.
HAZCHEM CODE	None allocated

Section 6. Accidental Release Measures

Wear suitable protective clothing as detailed in Section 8. Evacuate all non-essential personnel.

Prevent entry to sewers and public waters.

On land, sweep or shovel into suitable containers. Collect spill when it is dry. Wash thoroughly after handling. Dispose of according to Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Wear protective clothing as detailed in Section 8.
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit.
- Remove contaminated clothing and shoes. Wash clothing before re-using.
- When using do not eat, drink or smoke.
- Remove contaminated clothing and shoes.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store in dry, cool, well-ventilated area.

Section 8 Exposure Controls / Personal Protection

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 NOV 2020 12TH EDITION.

MONOPOTASSIUM PHOSPHATE (7778-77-0)

DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	4.07 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	3.04 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.05 mg/l
PNEC aqua (marine water)	0.005 mg/l
PNEC aqua (intermittent, freshwater)	0.5 mg/l
PNEC (STP)	
PNEC sewage treatment plant	50 mg/l

Engineering Controls

Avoid dust production. Good ventilation of the workplace required.

Personal Protection Equipment



Eyes	Safety glasses with side shields.
Hands	Wear protective gloves:
Skin	Protective clothing (with elasticated cuffs and closed neck)
Respiratory	Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material (Type FFP2 in accordance with EN 140 or 149)

Section 9 Physical and Chemical Properties

Appearance	Crystals
Colour	White
Odour	Odourless
Odour Threshold	Not available
Molecular Mass	115g/mol
pH	4.3 – 4.7 Solution of 1%
Boiling Point	>450°C
Melting Point	253 °C
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	4.5x10 ⁻¹⁵ Pa at 25°C
Density	1.3 +/- 0.1 (g/cm ³)
Solubilities	Water: 226 g/l 20°C
Log Pow	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity, dynamic	Not available
Particle Characteristics	Not available
Explosive Properties	Not available
Other information: VOC content Other properties	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Reactivity	None known
Possible hazardous reactions	None known.
Conditions to Avoid	Moisture.
Incompatible Materials	None known.
Hazardous Decomposition Products	Phosphorus oxides.

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes serious eye irritation.
Skin	Not applicable.

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.

LD50 oral rat	<2000 mg/kg (OECD 420)
LD50 dermal rat	> 2000 mg/kg (OECD 402)
LC50 inhalation rat (mg/l)	0.83 mg/l (4h – OECD 403)

Section 12. Ecotoxicological Information

This product does not present any particular risk for the environment.

Persistence and degradability	Not relevant. (inorganic substance).
Bioaccumulation	No
Mobility in Soil	No data available
Other adverse effects	Phosphates are plant nutrient and as such may contribute to the growth of phytoplanktons in water.

Toxicity:

MONOPOTASSIUM PHOSPHATE (7778-77-0)

LC50 fish 1 > 100 mg/l (96h - Rainbow trout, OECD guideline 203)
 EC50 Daphnia 1 > 100 mg/l (48h - Daphnia magna, OECD 202)
 NOEC chronic algae > 100 mg/l (72h - Desmodesmus subspicatus, OECD 201)
 NOEC (additional information) (3 Hours- 1000 mg/L, ACTIVATED SLUDGE, OECD 209)
 OECD 209

Section 13. Disposal Considerations

Disposal Method:

Dispose in a safe manner in accordance with local/national regulations. Empty packaging can have residues or dusts and are subject to proper waste disposal, as above

Disposal methods to avoid: None known.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: Fertilisers (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
EC ₅₀	Median effective concentration.
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

Product Name: Monopotassium Phosphate (MKP)
 Date of SDS: 20 January 2022

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

LD ₅₀	inhaling or ingesting it.
LEL	Lethal dose to kill 50% of test animals/organisms.
OSHA	Lower explosive level.
TEL	American Occupational Safety and Health Administration.
TLV	Tolerable Exposure Limit.
UEL	Threshold Limit Value-an exposure limit set by responsible authority.
WES	Upper Explosive Level
	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
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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