

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **KINGS ORCHID MIX**
 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: 17 October 2023 v2

Section 2. Hazards Identification

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

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms



Irritant



Chronic

Signal Word: Warning

GHS Classification and Category	Hazard Code	Hazard Statement
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
Reproductive toxicity Cat. 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to the aquatic environment chronic Cat. 4	H402	Harmful to aquatic life.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust.

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P363	Wash contaminated clothing before reuse.
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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	Storage Statement
P405	Store locked up.

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

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Nutricote Totals 13N	75-85	Not Applicable
Novatec Classic	10-20	Not Applicable

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	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical advice/attention.
If Swallowed	If conscious, give plenty of water to drink and provoke vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
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:	May cause an allergic skin reaction
Eyes:	Causes severe eye irritations.
Chronic:	Suspected of damaging fertility or the unborn child.

Section 5. Fire Fighting Measures

Hazard Type	Non-combustible substance with oxidizing ingredient
Hazards from combustion products	When heated to decomposition, it emits toxic fumes of NOx and ammonia.
Suitable Extinguishing media	Water
Precautions for firefighters and special protective clothing	Self-contained breathing apparatus. Remove the product from the source of fire. Remove the product from combustible materials as it may support combustion of them. If it is difficult to move, flush with plenty of water.
HAZCHEM CODE	None Allocated

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel.

Sweep up and shovel into suitable containers for disposal. Avoid contact with combustibles. Reuse as fertilizer, if possible.

Do not empty into drains. Retain and dispose of contaminated wash water.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions.
- Do not handle until all safety precautions have been read and understood.
- Avoid breathing dust.
- Wash hands thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing.
- Use personal protective equipment as required.
- Avoid mixing with fuels, other combustible materials and strong alkaline agents.

Precautions for Storage:

- The product is hygroscopic and should therefore be stored in a dry place.
- Store away from reducing agents.
- Store locked up.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Talc (containing no asbestos fibres)[14807-96-6]	-	2mg/m ³	Respirable dust	

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.

Engineering Controls

Ensure adequate ventilation is available

Personal Protection Equipment:



Eyes	Wear goggles with side shields. Avoid wearing contact lenses.
Hands and Skin	Normal clean work clothing and rubber gloves.
Respiratory	Dust mask with particle filter.

Section 9 Physical and Chemical Properties

Appearance	Various Colours in Granular form
Odour	Very faint
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Between 1000 and 1150 kg/m ³
Solubilities	Partially soluble and partially the fertilizer inside the coating dissolves in water gradually
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Size	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	High heating.
Incompatible Materials	Strong alkaline agents.
Hazardous Decomposition Products	Nitrogen oxides (NO _x), Ammonia. Decomposition under high temperature.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable. Mixture Rules Calculation= LD50 = 2555mg/kg
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe irritation to eyes
Skin	May cause an allergic skin irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child.

Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Components:

ammonium nitrate:

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : > 88,8 mg/l
Method: No information available.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

disodium tetraborate pentahydrate:

Acute oral toxicity : LD50 (Rat): 3.200 - 3.400 mg/kg
Method: No information available

Acute inhalation toxicity : LC50 (Rat): > 2,0 mg/l
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg
Method: No information available

Section 12. Ecotoxicological Information

Harmful to aquatic life.

Components:

ammonium nitrate:

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

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 490 mg/l
Exposure time: 48 h

LC50 : 490 mg/l

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l
Exposure time: 10 d

disodium tetraborate pentahydrate:

Toxicity to fish : LC50 (Fish): 74 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 242 mg/l
Exposure time: 24 h

Toxicity to algae : EC10 (Scenedesmus subspicatus): 24 mg/l
Exposure time: 96 h

Persistence and degradability	Fertilizer granules are soluble in water and biodegradable. Coating materials are persistent and not biodegradable.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.
Ensure waste container holding any unwanted product or contaminated spill media is labelled "Hazardous Waste"

Precautions: depositing the substance in a landfill provided the landfill is managed to ensure that—

- (i) the substance will not at any time come into contact with an explosive or flammable substance (equivalent to HSNO class 1, 2, 3 or 4); and
- (ii) there is no ignition source in the vicinity of the disposal site that is capable of igniting the substance; and
- (iii) if the substance were to combust, or cause or contribute to combustion, no person or place where a person may legally be, would be exposed to more blast overpressure or heat radiation than that described in regulation 7(3)(b) of the Hazardous Substances (Disposal) Regulations 2001; and
- (iv) the concentration of the substance in any discharge from the landfill does not, after reasonable mixing, exceed any relevant tolerable exposure limit and/or environmental exposure limit set for the substance or any of its component(s).

Disposal methods to avoid: Do not allow to enter waterways

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: Fertilisers (Subsidiary Hazard) – HSR002571

Trigger quantities:

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	1000kg
Secondary Containment	1000kg
Restriction of Use	Only use for the intended purpose.

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 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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