

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Hakaphos Calcidic Complete (VdU)**
 Item Code:
 Product Use: Fertiliser
 Restriction of Use: Refer to Section 15

New Zealand Supplier: HortFertplus
 Address: 18 Cabernet Crescent
 Westgate, Auckland 0614
 Telephone: +64 9 478 5585

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 4 May 2019

Section 2. Hazards Identification

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval No: Fertilisers (oxidising) – HSR002570

Pictograms



Oxidiser



Toxic



Corrosive

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
5.1.1C	H272	May intensify fire oxidiser.	Category 3
6.1D (oral)	H302	Harmful if swallowed.	Category 4
6.3B	H316	Causes mild skin irritation.	Category 3
8.3A	H318	Causes serious eye damage.	Category 1
9.1D	H402	Harmful to aquatic life.	Category 4

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P220	Keep or store away from clothing or combustible materials.

P221	Take any precaution to avoid mixing with combustibles.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective clothing.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P370 + P378	In case of fire: Use water for extinction.

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.
Ammonium Nitrate	≥10-<30	6484-52-2
Potassium Nitrate	>10-<25	7757-79-1
Potassium Pentahydrogen bis(phosphate)	≥10-<30	14887-42-4
Calcium Nitrate	≥10-<20	10124-37-5

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. If skin irritation occurs: get medical advice/attention.
If Swallowed	Rinse mouth. Clean mouth with water and drink afterwards plenty of water. 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. In case of lung irritation, first treatment with dexametason aerosol (spray).

Section 5. Fire Fighting Measures

Hazard Type	Non-combustible substance with oxidizing ingredient
Hazards from combustion	At temperatures above 130 °C, dangerous decomposition gases can be emitted:

products	Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia Oxides of phosphorus
Suitable Extinguishing media	Water Unsuitable: Foam, Dry chemical, Carbon dioxide (CO ₂), Sand
Precautions for firefighters and special protective clothing	Self-contained breathing apparatus. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
HAZCHEM CODE	1Y

Section 6. Accidental Release Measures

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

For cleanup use mechanical handling equipment. Keep in suitable, closed containers for disposal.

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

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Keep or store away from clothing or combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing.
- Avoid dust formation.
- Keep away from direct sunlight.
- Keep away from heat.
- Protect from contamination.
- Protect from moisture.

Precautions for Storage:

- Protect against humidity (product is hygroscopic and tends to cake or disintegrate)
- Store away from combustible materials.
- Protect from contamination.
- When stored loose do not mix with other fertilizers.
- Protect from moisture.
- Keep out of reach of children.
- Keep in a dry place.

Section 8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Control parameters

3 mg/m³ (Dust entering alveoli), 10 mg/m³ (inhalable dust)

DNEL

Ammonium Nitrate

: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Specific effects

Exposure time: 1 d

Product Name: Hakaphos Calcidic Complete
Date of SDS: 4 May 2017

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

Value: 37,6 mg/m3

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Specific effects
Exposure time: 1 d
Value: 21,3 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Specific effects
Exposure time: 1 d
Value: 12,8 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Specific effects
Exposure time: 1 d
Value: 12,8 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Specific effects
Exposure time: 1 d
Value: 11,1 mg/m3

potassium nitrate

: End Use: Workers
Exposure routes: Inhalation
Potential health effects: Systemic effects
Value: 36,7 mg/m3

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Systemic effects
Exposure time: 1 d
Value: 20,8 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Systemic effects
Exposure time: 1 d
Value: 12,5 mg/kg

End Use: Consumers Exposure
routes: Skin contact
Potential health effects: Systemic effects
Exposure time: 1 d
Value: 12,5 mg/kg
Exposure time: 1 DAY
Value: 8,33 mg/kg

calcium nitrate

: End Use: Workers
Exposure routes: Inhalation
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 24,5 mg/m3

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 13,9 mg/kg

End Use: Consumers
 Exposure routes: Inhalation
 Potential health effects: systemic effects
 Value: 6,3 mg/m³

End Use: Consumers
 Exposure routes: Skin contact
 Potential health effects: systemic effects
 Value: 8,33 mg/kg

End Use: Consumers
 Exposure routes: Ingestion
 Potential health effects: systemic effects
 Exposure time: 1 DAY
 Value: 8,33 mg/kg

Engineering Controls

Provide adequate ventilation.

Personal Protection

Eyes	Tightly fitting safety goggles with side shields.
Hands and Skin	Chemical resistant protective gloves (EN 374). The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
Respiratory	Breathing apparatus only if aerosol or dust is formed. Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).
General	At the end of the shift the skin should be cleaned and skin care agents applied.

Section 9 Physical and Chemical Properties

Appearance	Solid – various colours
Odour	Odourless
Odour Threshold	Not available
pH	ca. 2,0 – 2,3, Concentration: 100,00g/l (20 °C)
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	None
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Relative Density	Not available
Bulk Density	ca. 1.150 kg/m ³
Solubilities	Soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	>130°C To avoid thermal decomposition, do not overheat. The product is capable of self-sustaining progressive thermal decomposition.
Kinematic Viscosity	Not available
Particle Size	Not available
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 3. Manual of tests and criteria. Test O.1 (United Nations

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Corrosive to metals Contact with water or moist air liberates phosphoric acid.
Incompatible Materials	Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds.
Hazardous Decomposition Products	Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia. Oxides of phosphorus.

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Harmful if swallowed. Mixture Rules Calculation= LD50 = 809mg/kg.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye damage
Skin	Causes mild 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.

Section 12. Ecotoxicological Information

HSNO Classes: 9.1D = Toxic to aquatic life.

PNEC

Ammonium Nitrate : Fresh water
Value: 0,45 mg/l

Marine water Value:
0,045 mg/l

Ceiling Limit Value
Value: 4,5 mg/l

potassium nitrate : Fresh water
Value: 0,45 mg/l

Marine water Value:
0,045 mg/l

Ceiling Limit Value
Value: 4,5 mg/l

Potassium pentahydrogen bis(phosphate) : Fresh water
Value: 0,05 mg/l

Marine water Value:
0,005 mg/l

Intermittent use/release
Value: 0,5 mg/l

Behaviour in waste water treatment plants
Value: 50 mg/l

calcium nitrate

: Fresh water
Value: 0,45 mg/l

Marine water Value:
0,045 mg/l

Ceiling Limit Value
Value: 4,5 mg/l

Persistence and degradability	The product works in the soil as fertilizer and is diminished in a few weeks.
Bioaccumulation	Bioaccumulation is unlikely.
Mobility in Soil	Groundwater contamination is unlikely.
Other adverse effects	There is a high probability that the product is acute not harmful to aquatic organisms., Additional ecological information, The product has not been tested. The information is derived from the properties of the individual components., At higher pH values, which can be found in natural surface waters, an increase of toxic effects on aquatic organisms may be expected.

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 - Oxidiser"

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 classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**Road and Rail Transport

UN No: 1479
 Class-primary 5.1
 Packing Group III
 Proper Shipping Name: (OXIDIZING SOLID, N.O.S, Potassium Nitrate, calcium Nitrate)

Air Transport

UN No: 1479
 Class-primary 5.1
 Packing Group III
 Proper Shipping Name: (OXIDIZING SOLID, N.O.S, Potassium Nitrate, calcium Nitrate)

Marine Transport

UN No: 1479
 Class-primary 5.1
 Packing Group III
 Proper Shipping Name: (OXIDIZING SOLID, N.O.S, Potassium Nitrate, calcium Nitrate)
 Marine Pollutant: No

Section 15**Regulatory Information**

EPA Approval Code: Fertilisers (oxidising) – HSR002570

HSNO Classification: 5.1.1C, 6.1D (oral), 6.3B, 8.3A, 9.1D

HSNO Controls:

Trigger quantities:

	Trigger Quantity
Approved Handler	1000L/kg
Location Certificate	1000L/kg (storage)
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000L/kg
Emergency Response Plan	5000L/kg
Secondary Containment	5000L/kg
Restriction of Use	None

Section 16**Other Information****Glossary**

EC₅₀ Median effective concentration.
 EEL Environmental Exposure Limit.
 EPA Environmental Protection Authority
 HSNO Hazardous Substances and New Organisms.
 LC₅₀ Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
 LD₅₀ 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

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.

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

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