

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Hakaphos Calcidic Plus N**
 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: 26 November 2018

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms



Toxic/Irritant



Corrosive

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1D	H402	Harmful to aquatic life.	Aquatic Acute 3

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
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 as detailed in Section 8.
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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.
P362	Take off contaminated clothing and wash before re-use.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.

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.
Urea phosphate (1:1)	1-5	4861-19-2
Potassium Nitrate	< 15	7757-79-1
Nitric acid, ammonium calcium salt	35-55	15245-12-2
Ammonium Nitrate	10 - 45	6484-52-2
Disodium [[N,N'-ethylenebis[N-carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-)	0.1-0.2	14025-15-1

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. Immediately call a POISON CENTER or doctor/physician.
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	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. 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:	Harmful if swallowed.
Inhalation:	Not applicable
Skin:	Causes skin irritation.
Eyes:	Causes severe eye damage.

Treatment: Treat symptomatically.

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

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable.
Hazards from combustion products	At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia, Oxides of phosphorus
Suitable Extinguishing media	Water Unsuitable: Foam Dry chemical Carbon dioxide (CO2) 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	1Z

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.

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

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Avoid dust formation.
- Avoid contact with skin, eyes and clothing.
- Protect from contamination.
- Keep away from direct sunlight. Protect against heat.
- Protect from moisture.

Precautions for Storage:

- Keep out of reach of children.
- Keep away from heat.
- Keep away from sources of ignition - No smoking.
- Keep away from combustible material.
- Protect from contamination.
- When stored loose do not mix with other fertilizers.
- Protect against humidity (product is hygroscopic and tends to cake or disintegrate).
- Store well away from other substances.

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.

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/m ³
	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/m ³
nitric acid, ammonium calcium salt	Workers	Inhalation	Specific effects	24,5 mg/m ³
Remarks:	Exposure time: 1 DAY			
	Workers	Skin contact	Specific effects	13,9 mg/kg
Remarks:	Exposure time: 1 DAY			
	Consumers	Inhalation	systemic effects	6,3 mg/m ³
	Consumers	Skin contact	systemic effects	8,33 mg/kg
	Consumers	Ingestion	systemic effects	8,33 mg/kg
Remarks:	Exposure time: 1 DAY			
ammonium nitrate	Workers	Inhalation	Specific effects	36 mg/m ³
Remarks:	Exposure time: 1 d			
	Workers	Skin contact	Specific effects	5,12 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Specific effects	2,56 mg/kg bw/day
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Specific effects	8,9 mg/m ³
Remarks:	Exposure time: 1 d			

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

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
nitric acid, ammonium calcium salt	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l

ammonium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l

Engineering Controls

Ensure adequate ventilation is available

Personal Protection Equipment



Eyes	Tightly fitting safety goggles.
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 P2, medium efficiency, (solid and liquid particles of harmful substances).
General	Do not empty into drains. Retain and dispose of contaminated wash water.

Section 9 Physical and Chemical Properties

Appearance	Solid
Colour	Various
Odour	Odourless
Odour Threshold	Not available
pH	ca. 1,7, Concentration: 100 g/l (20 °C)
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
Bulk Density	ca. 1.050 kg/m ³
Specific Gravity	Not available
Solubilities	Soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	> 130 °C To avoid thermal decomposition, do not overheat.
Kinematic Viscosity	Not available
Particle Size	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Hazardous Reactions	Evolution of ammonia under influence of alkalis.
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, dinitrogenoxide, ammonia. Oxides of phosphorus

Section 11 Toxicological Information**Acute Effects:**

Swallowed	Harmful if swallowed. Mixture Rules Calculation= LD50 = 721.56mg/kg
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe irritation to eyes
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.

Information on toxicological effects 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

nitric acid, ammonium calcium salt:

Acute oral toxicity : LD50: > 300 mg/kg
 Acute inhalation toxicity : Remarks: Not relevant because of low vapour pressure.
 Remarks: Not relevant because of low dust formation.
 Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
 Method: OECD Guideline 402

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 [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Acute oral toxicity : LD50 Oral (Rat): > 1.750 mg/kg

Section 12. Ecotoxicological Information

HSNO Classes: 9.1D = Toxic to aquatic life.

Components:**potassium nitrate:**

Toxicity to fish : LC50 (Fish): > 100 mg/l

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Exposure time: 96 h

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

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

nitric acid, ammonium calcium salt:

Toxicity to fish : LC50 (Guppy): 1.378 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 490 mg/l

Toxicity to algae : LC50 (other aquatic plant): > 1.700 mg/l

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 [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-):

Toxicity to fish : LC50 (Fish): > 100 mg/l

Toxicity to algae : EC50 : 30 mg/l
Exposure time: 96 h

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	No data available.

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Triple rinse and dispose according to Local Regulations.

Precautions: None known.

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 5433:2012

Section 15 Regulatory Information

EPA Approval Code: Fertilisers (Subsidiary Hazard) – HSR002571

HSNO Classification: 6.1D (oral), 6.3A. 8.3A 9.1D

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000kg(8.3A)
Emergency Response Plan	1000kg(6.1D)
Secondary Containment	1000kg(6.1D)
Restriction of Use	None

Section 16 Other Information

Glossary

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 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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