

## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: **NovaTec Solub K-Max 10-5-30**  
 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

New Zealand: **0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 23 August 2022 v2

### Section 2. Hazards Identification

**Classified as hazardous according to Regulation (EC) No. 1272/2008 [CLP] which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Safety Data Sheets) Notice 2017.**

**EPA Approval No: Fertilisers (subsidiary) – HSR002571**

#### Pictograms



Irritant

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 label before use.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing.

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.

<b>Storage Code</b>	<b>Storage Statement</b>
None allocated	

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Dispose of according to Local Regulations or Authorities

### Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Potassium Nitrate	≥30- <40	7757-79-1
Potassium hydrogensulphate	<1.5	7646-93-7
disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cuprate(2-)	<0.5	14025-15-1
Non-hazardous ingredients	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: Get medical advice.
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	Rinse 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).

#### Most important symptoms and effects, both acute and delayed

Symptoms:	Causes skin irritation. Causes serious eye irritation. Ingestion may provoke the following symptoms: Methaemoglobinemia
Risk:	Later control for pneumonia and lung oedema.

#### Indication of any immediate medical attention and special treatment needed

Treatment	Treat symptomatically. There is no specific antidote available.
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### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Non Flammable
<b>Hazards from combustion products</b>	Can decompose at above 130 °C. Thermal decomposition products: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia.
<b>Suitable Extinguishing</b>	Water Not suitable: Foam, Dry chemical, Carbon dioxide (CO <sub>2</sub> ) and Sand

<b>media</b>	
<b>Precautions for firefighters and special protective clothing</b>	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.
<b>HAZCHEM CODE</b>	<b>None Allocated</b>

**Section 6. Accidental Release Measures**

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel. Avoid dust formation. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Use mechanical handling equipment for cleanup.

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.
- Wear protective clothing.
- Keep away from sources of ignition - No smoking.
- Protect from contamination.
- Protect from moisture, direct sunlight and heat.

**Precautions for Storage:**

- Keep away from combustible material.
- Do not store together with oxidizing and self-igniting products.
- Keep away from direct sunlight.
- Protect from contamination.
- Protect from moisture.
- Protect against water.
- When stored loose do not mix with other fertilizers.
- Protect against humidity (product is hygroscopic and tends to cake or disintegrate).
- Keep in a dry place.

**Section 8 Exposure Controls / Personal Protection**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

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/m <sup>3</sup>
	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:**

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:**



<b>Eyes</b>	Wear goggles with side shields. Avoid wearing contact lenses.
<b>Hands and Skin</b>	Wear gloves.
<b>Respiratory</b>	Particle filtering disposable mask DIN EN 149 with filter FFP2.
<b>General</b>	At the end of the shift the skin should be cleaned and skin care agents applied.

**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Various colours - Granular
<b>Odour</b>	Very faint
<b>Odour Threshold</b>	Not available
<b>pH</b>	ca. 5 – 5.5, Concentration: 100,00 g/l (20 °C)
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	The product is not flammable.
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Bulk Density</b>	ca. 1.150 kg/m <sup>3</sup>
<b>Solubilities</b>	Soluble
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	> 130 °C To avoid thermal decomposition, do not overheat
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not applicable

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Hazardous reactions</b>	Evolution of ammonia under influence of alkalies.
<b>Conditions to Avoid</b>	Protect from frost, heat and sunlight. Avoid moisture.
<b>Incompatible Materials</b>	Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds.
<b>Hazardous Decomposition Products</b>	Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not applicable. LD50 (Rat): > 2.000 mg/kg
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Not applicable.
<b>Eye</b>	Causes severe irritation to eyes
<b>Skin</b>	Causes skin irritation.

### Chronic Effects:

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

### Components:

#### **Potassium nitrate :**

Acute oral toxicity : LD50: > 2.000 mg/kg, rat

Acute inhalation toxicity : LC50: > 0,527 mg/l, rat

Acute dermal toxicity : LD50: > 5.000 mg/kg, rat

#### **potassium hydrogensulphate:**

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

**disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON]cuprate(2-):** Acute oral toxicity : LD50 (Rat): 890 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5,32 mg/l  
Exposure time: 4 h  
Method: OECD Test Guideline 436

## Section 12. Ecotoxicological Information

Not hazardous to the environment.

### Toxicity

#### Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 422 mg/l

Exposure time: 48 h  
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 555 mg/l  
aquatic invertebrates  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae : No observed effect concentration (Desmodesmus subspicatus  
(green algae)): 83 mg/l  
Exposure time: 168 h  
Test Type: other  
Method: No data available

Toxicity to bacteria : EC20 (activated sludge): ca. > 100 mg/l  
Exposure time: 0,5 h  
Test Type: other

Method: No data available

#### **Components:**

##### **potassium nitrate :**

Toxicity to fish : LC50: > 100 mg/l, 96 h, Fish  
Toxicity to daphnia and other : LC50: 490 mg/l, 48h, Daphnia magna (water flea)  
Aquatic invertebrates : LC50: >= 1.700 mg/l, 10 d  
Toxicity to algae : LC50: >= 1.700 mg/l, 10 d

##### **potassium hydrogensulphate:**

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

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

Toxicity to fish : LC50 (Fish): 555 mg/l  
Exposure time: 96 h

<b>Persistence and degradability</b>	The product works in the soil as fertilizer and is diminished in a few weeks.
<b>Bioaccumulation</b>	Bioaccumulation is unlikely.
<b>Mobility in Soil</b>	No data available.
<b>Other</b>	No data available.

### **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"

**Disposal methods to avoid:** None known.

### **Section 14 Transport Information**

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

### **Section 15 Regulatory Information**

**Classified as hazardous according to Regulation (EC) No. 1272/2008 [CLP] which meets New Zealand jurisdiction criteria as per EPA Hazardous Substances (Safety Data Sheets) Notice 2017.**

#### **EPA Approval No: Fertilisers (subsidiary) – HSR002571**

Product Name: NovaTec Solub K-Max 10-5-30  
Date of SDS: 23 August 2022

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

<b>HSW (HS) Regulations 2017 and EPA Notices</b>	<b>Trigger Quantity</b>
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	Only use for the intended purpose.

## **Section 16 Other Information**

### **Glossary**

Cat	Category
EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	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

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