

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: NovaTec Solub 14-8-30
 Product Use: Fertilizer
 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: 11 August 2020

Section 2. Hazards Identification

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

EPA Approval No: Fertiliser (subsidiary) – HSR002571

Pictograms



Irritant

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
9.3C	H433	Harmful to terrestrial vertebrates.	-

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	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.
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

Ingredients	Wt%	CAS NUMBER.
Ammonium nitrate	≥5 - <10	6484-52-2
Potassium nitrate	≥50 - ≤60	7757-79-1

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. 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	Immediately rinse the mouth with water, then drink a lot of water. Consult the doctor in case of persistent trouble.
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:	May be harmful if swallowed. Ingestion may provoke the following symptoms: Methaemoglobinemia
Inhalation:	Not applicable.
Skin:	Causes mild skin irritation.
Eyes:	Causes severe eye irritation.

Risk: Later control for pneumonia and lung oedema.

Treatment: Treat symptomatically. There is no specific antidote available.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from decomposition products	At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia

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	None allocated

Section 6. Accidental Release Measures

Evacuate unnecessary personnel. Wear PPE as detailed in Section 8. Avoid raising dust. Do not get in eyes, on skin, or on clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

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

Use mechanical handling equipment. Disposal of contaminated material as waste according to section 13.

Section 7. Handling and Storage

Handling

- Read label before use.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Keep away from heat and sources of ignition.
- Keep away from combustible materials.
- At the end of the shift the skin should be cleaned and skin care agents applied.
- Wear protective clothing as detailed in Section 8.

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).
- Protect against water.
- Keep away from direct sunlight, heat and moisture.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm mg/m³	STEL ppm mg/m³
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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 2019 11TH EDITION.

Engineering Controls: Ensure adequate ventilation.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
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		
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/kg

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

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

Personal Protection Equipment



Eyes	Chemical goggles or safety glasses.
Skin	Wear protective gloves.
Respiratory	Respiratory protection only if aerosol or dust is formed. Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).

Section 9 Physical and Chemical Properties

Appearance	Crystalline
Colour	Various colours
Odour	Very faint
Odour Threshold	Not available
pH	ca. 5 - 5,5, Concentration: 100 g/l (20 °C)
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Non flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Bulk Density	ca. 1.150 kg/m ³
Solubilities	Soluble in water.
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 material is stable when stored and used as directed.
Hazardous Reactions	Evolution of ammonia under influence of alkalis.
Conditions to Avoid	Protect from frost, heat and sunlight. Avoid moisture.
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.

Section 11 Toxicological Information**Acute Effects:**

Swallowed	May be harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe eye irritation.
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	May cause damage to organs through prolonged or repeated exposure.
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Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Ammonium Nitrate (Cas no 6484-52-2)	>2950 mg/kg (rat)	>5000mg/kg (rat)	>88.8 mg/l
Potassium Nitrate (Cas no 7757-79-1)	>2000 mg/kg (rat)	>5000 mg/kg (rat)	0.527 mg/l

Section 12. Ecotoxicological Information

HSNO Classes: 9.3C = Harmful to terrestrial vertebrates.

Persistence and degradability	The product works in the soil as fertilizer and is diminished in a few weeks.
Bioaccumulation	Product: Bioaccumulation is unlikely. Ammonium Nitrate: Bioaccumulation is unlikely. Potassium nitrate: Does not bioaccumulate.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Product:	
LC50 fish	LC50 (Cyprinus carpio (Carp)): 422 mg/l Exposure time: 48 h Test Type: static test
EC50 Daphnia	555 mg/l 48 hr Test Type: static test
ErC50 (algae)	No observed effect concentration (Desmodesmus subspicatus (green algae)): 83 mg/l Exposure time: 168 h
Toxicity to bacteria	EC20 (activated sludge): ca. > 100 mg/l Exposure time: 0,5 h
Ammonium nitrate: (Cas no 6484-52-2)	
LC50 fish	>100 mg/l
EC50 Daphnia 1	490 mg/l 48 hr
ErC50 (algae)	EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l Exposure time: 10 d
Potassium Nitrate (Cas no 7757-79-1)	
LC50 fish	>100 mg/l
EC50 Daphnia 1	490 mg/l 48 hr
ErC50 (algae)	EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l Exposure time: 10 d

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Empty containers should be taken for recycle, recovery or waste in accordance with local regulation. Triple rinse and dispose according to Local Regulations.

Precautions or methods to avoid: Do not discharge into drains or rivers.

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: Fertiliser (subsidiary) – HSR002571

HSNO Classification: 6.1E(oral), 6.3B, 6.4A, 9.3C

HSWA & EPA Controls	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	1000kg (9.3C)
Emergency Response Plan	Not required
Secondary Containment	Not required
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

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time

Product Name: NovaTec Solub
Date of MSDS: 11 August 2020

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
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of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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

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