

SAFETY DATA SHEET

Section 1.	Identification of the material and the supplier
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Product: **NovaTec Solub 21**
 Item Code: 000000002588504899
 Product Use: Fertiliser
 Restriction of Use: Refer to Section 15

New Zealand Supplier: HortFertplus
 Address: 7C Vega Place
 Rosedale, Auckland, 0632
 Telephone: +64 9 478 5585
 Fax Number: +64 9 478 5586

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 1 June 2017

Section 2.	Hazards Identification
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This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval No: HSR002770

Pictograms



Irritant

Signal Word: Warning

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Category 4
9.1D	H401	Toxic to aquatic life.	Category 4
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.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P330	Rinse mouth.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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 Sulphate	≤100	7783-20-2

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. 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 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 Flammable
Hazards from combustion products	Can decompose at above 170 °C. Thermal decomposition products: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia.
Suitable Extinguishing media	Water Not suitable: Foam, Dry chemical, Carbon dioxide (CO ₂), ABC powder and Sand
Precautions for firefighters and special protective clothing	In the event of fire, wear self-contained breathing apparatus. The product is not capable of self-sustaining progressive thermal decomposition (UN S1). Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire debris must be disposed of in accordance with official regulations.
HAZCHEM CODE	None Allocated

Section 6. Accidental Release Measures

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

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:

- Keep out of reach of children.
- Read label before use.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.

Precautions for Storage:

- Keep away from combustible material.
- Keep away from heat.
- Keep away from sources of ignition - No smoking.
- Keep away from direct sunlight.
- Protect from contamination.
- Protect against humidity (product is hygroscopic and tends to cake or disintegrate).

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.*

Engineering Controls

Ensure adequate ventilation is available

Personal Protection

Eyes	Wear goggles.
Hands and Skin	Chemical resistant protective gloves (EN 374). e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchlo-ride (0.7 mm) and other.
Respiratory	Breathing apparatus only if aerosol or dust is formed.

Section 9 Physical and Chemical Properties

Appearance	Various colours - Crystalline
Odour	Very faint
Odour Threshold	Not available
pH	ca. 5, Concentration: 100 g/l (20 °C)
Boiling Point	Not available
Melting Point	350 ⁰ C
Freezing Point	Not available
Flash Point	Not available
Flammability	The product is not flammable.
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Density	ca. 1.760 g/cm ³ (20 °C)
Bulk Density	ca. 1.000 kg/m ³

Product Name: NovaTec Solub 21
Date of SDS: 1 June 2017

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

Water Solubility	ca. 754 g/l soluble (20 °C)
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	ca. 235 °C Ammonia gas may be liberated at high temperatures.
Kinematic Viscosity	Not available
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	None known.
Incompatible Materials	substances with an acid reaction alkaline reactive substances When mixed with ignitable substances, oxidizable substances: Risk of explosion if heated under confinement.
Hazardous Decomposition Products	Can decompose at above 170 °C. Thermal decomposition products: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed. LD50 (Rat): 4.250 mg/kg
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
Skin	Not applicable.

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.

Components:

ammonium sulphate:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Guinea pig): 900 mg/l

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Section 12. Ecotoxicological Information

HSNO Classes: 9.1D = Toxic to aquatic life.
9.3C = Harmful to terrestrial vertebrates.

Toxicity

Product:

Toxicity to fish : LC50 (golden orfe): 460 - 1.000 mg/l
Method: Directive 92/69/EEC, C.1, Acute toxicity for fish

Toxicity to daphnia and other : LC50 (Daphnia magna): 129 mg/l
aquatic invertebrates Exposure time: 48 h
Test Type: static test

Components:

ammonium sulphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 121,7 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 2.700 mg/l
Exposure time: 18 Days

Toxicity to daphnia and other : EC10: 3,12 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 70 Days
Test Type: No data available

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	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 5433:2012

Section 15 Regulatory Information

EPA Approval Code: HSR002770

HSNO Controls:

Trigger quantities:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10000kg
Emergency Response Plan	10000kg
Secondary Containment	10000kg
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

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

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