SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**NovaTec Solub P-Max 13-33-13**
Product Use:	Fertiliser
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	Horticentre 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:	8 July 2021

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: Fertilisers (subsidiary) – HSR002571

Pictograms

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
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 as detailed in Section 8.

Response Code	Response Statement
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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	≤10	6484-52-2
Potassium nitrate	≥ 25 - ≤ 35	7757-79-1
Ingredients determined to be Non-Hazardous	To 100	

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. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If on Skin: Wash with plenty of soap and water. Seek medical advice if needed.

If Swallowed: Rinse the mouth with water; if swallowing has occurred, drink plenty of water and induce vomiting. Require medical assistance, if necessary.

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: Causes serious eye irritation. Ingestion may provoke the following symptoms: Methaemoglobinemia.

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

Section 5. Fire Fighting Measures

Hazard Type	The product is non-flammable.
Hazards from combustion products	At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia.
Suitable Extinguishing media	Water. Not suitable: 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

Avoid dust formation. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Prevent spreading in sewers. Prevent soil and water pollution. Dam up the liquid spill.

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

Use mechanical handling equipment. Dispose of according to Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Wear protective clothing as detailed in Section 8.
- Protect from contamination.
- Keep away from direct sunlight. Protect against heat.
- Protect from moisture.
- At the end of the shift the skin should be cleaned and skin care agents applied.

Precautions for Storage:

- Keep away from heat. Keep away from direct sunlight.
- 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.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**

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.

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

Substance name	End Use	Exposure routes	Potential health effects	Value
ammonium nitrate				36 mg/m3

Substance name	End Use	Exposure routes	Potential health effects	Value
Ammonium Nitrate	Workers	Inhalation	Long-term systemic effects	36 mg/m3
	Workers	Skin Contact	Long-term systemic effects	5.12 mg/m3
	Consumers	Ingestion	Long-term systemic effects	2.56 mg/m3
	Consumers	Ingestion	Long-term systemic effects	8.9mg/m3
	Consumers	Skin contact, ingestion	Long-term systemic effects	2,56 mg/kg bw/day
Potassium	Workers	Inhalation	Systemic effects	36.7 mg/m³

Nitrate				
	Workers	Skin Contact	Systemic effects	20,8 mg/kg
Remarks	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks	Exposure time: 1 day			
	Consumers	Inhalation	Systemic effects	10,9 mg/m^3

Engineering Controls
The storage and handling areas should be well ventilated; provide adequate local exhaust ventilation at points of possible emission of ammonia.

Personal Protection Equipment

Eyes	Provide eyes protection with splash-proof goggles or face shield in compliance with EN 166 norm. Avoid contact lenses.
Hands	Wear protective gloves.
Respiratory	Particle filtering disposable mask DIN EN 149 with filter FFP2.
General	Do not empty into drains. Retain and dispose of contaminated wash water.

Section 9 Physical and Chemical Properties

Appearance	Granular
Colour	Various
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	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Bulk Density	1 ca. 1.150 kg/m^3
Solubilities	Soluble in water
Log Pow	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not available
Explosive Properties	Not available

Section 10. Stability and Reactivity

Stability of Substance	Stable under recommended storage and treatment circumstances.
Possible hazardous reactions	Evolution of ammonia under influence of alkalies.
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	Not applicable. LD50 (Rat): > 2.000 mg/kg
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes serious eye irritation.
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 nitrate:

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: > 88,8 mg/l

Acute dermal toxicity: LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 402

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

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

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
Other adverse effects	No data available

Section 13. Disposal Considerations

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

Disposal methods to avoid: None known.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2012

Section 15 Regulatory Information

EPA Approval Code: **Fertilisers (subsidiary) – HSR002571**

HSWA & EPA Controls	Trigger Quantity
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	None

Section 16 Other Information

Glossary

Cat	Category
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 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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