SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	Duration NPK, All grades, All longevities
Product No:	
Product Use:	Turf and Ornamental
Restrictions 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
New Zealand:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	20 September 2017

Section 2. Hazards Identification

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

Group Standard & EPA Approval Code: Fertilisers (subsidiary) – HSR002571

Pictograms

Irritant

Signal Word: **WARNING**

HSNO Class.	Hazard Code	Hazard Statement	GHS Category
6.4A	H319	Causes serious eye irritation.	Category 2A
9.1D	H401	Toxic to aquatic life.	Category 4

Prevention Code	Prevention Statement
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing.

Response Code	Response Statement
P305 +	IF IN EYES: Rinse cautiously with water for several minutes. Remove

P351+P338	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	Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Ammonium nitrate	10-30	6484-52-2
Non hazardous	To bal	

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 — Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

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

Inhalation — Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion — May cause irritation to the digestive tract if swallowed.
Skin — May cause skin irritation.
Eyes — May irritate the eyes upon contact.

Indication of any immediate medical attention and special treatment needed

Treatment — In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides

	metal oxide/oxides
Suitable Extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Precautions for firefighters and special protective clothing	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
HAZCHEM CODE	**None allocated**

Section 6. Accidental Release Measures

No action shall be taken involving any personal risk or without suitable training.
Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up

Small spill Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Handling

- Read label before use.
- Wash hands thoroughly after handling.
- Avoid release to the environment.
- Wear protective clothing.
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

Storage

- Store in original container protected from direct sunlight in a dry, cool and well-ventilated area.
- Keep container tightly closed and sealed until ready for use.
- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Do not store in unlabeled containers.
- Use appropriate containment to avoid environmental contamination.
- Keep out of reach of children.
- Store away from incompatible materials listed in Section 10.

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.

DNEL

Ammonium Nitrate : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 37,6 mg/m3

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 21,3 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 12,8 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Specific effects
Exposure time: 1 DAY
Value: 12,8 mg/kg

PNEC

Ammonium Nitrate : Fresh water
Value: 0,45 mg/l

Marine water Value:
0,045 mg/l

Ceiling Limit Value
Value: 4,5 mg/l

Engineering Controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Eyes	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Hands and Skin	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product
Respiratory	Use a properly fitted, air-purifying or air-fed respirator complying with an

	approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental Exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9 Physical and Chemical Properties

Appearance	Solid
Colour	Tan (Dark)
Odour	Not available
Odour Threshold	Not available
pH @ 20^{0}C	Not available
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
Bulk Density	Not available
Solubilities	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Avoid exposure - obtain special instructions before use.
Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Incompatible Materials	No specific data.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity	Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials and organic materials.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes severe irritation to eyes.
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: > 2.217 mg/kg, rat

Acute inhalation toxicity : > 88,8 mg/l, No information available., Not relevant because of low vapour pressure., Not relevant because of low dust formation.

Acute dermal toxicity : LD50: > 5.000 mg/kg, rat, OECD Test Guideline 402

Skin corrosion/irritation : rabbit, Result: non-irritant, OECD Test Guideline 404

Serious eye damage/eye irritation : rabbit, Result: Irritant, OECD Test Guideline 405

Respiratory or skin Sensitization : Result: Does not cause skin sensitization.

Result: negative, OECD Test Guideline 471
rat, Oral, Exposure time: 28 d, NOAEL: > 1.500 mg/kg
rat, Oral, Exposure time: 52 w, NOAEL: = 256 mg/kg, OECD Test Guideline 453
rat, by inhalation, Exposure time: 2 w, NOAEL: >= 185 mg/kg, Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

Section 12. Ecotoxicological Information

HSNO Classifications: 9.1D = Toxic to aquatic life.

Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Components:

Toxicity

Component	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to algae
Ammonium Nitrate	LC50: > 100 mg/l, 96	EC50: 490 mg/l	EC50: 1.700 mg/l,

	h, various species	LC50: 490 mg/l	other aquatic plant

Other

Component	Biodegradability	Bioaccumulation	Mobility in soil
Ammonium Nitrate	The methods for determining the biological degradability are not applicable to inorganic substances.	Bioaccumulation is unlikely.	no data available

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:
Triple rinse container. Cleaned packaging maybe offered for recycling or landfill in accordance with local regulations. Dispose of unwanted product as a hazardous material according to Local Regulations.

Precautions and methods to avoid:
Do not allow to enter into surface water or drains where possible.

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

HSNO Classification: 6.4A, 9.1D

HSNO Controls:
Trigger quantities for this substance:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not applicable
Signage Trigger Quantities	10000kg (9.1D)
Emergency Response Plan trigger Quantities	10000kg (9.1D)
Restrictions 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.

Disclaimer

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

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