Safety Data Sheet

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	**Nitrophoska Perfect**
Product Code:	4540000
Recommended Use:	Fertiliser
Restrictions of Use:	Refer to Section 15
Company Identification:	Ravensdown Limited
Address:	292 Main South Road, Hornby, Christchurch 8042 PO Box 1049, Christchurch 8011
Customer Centre:	0800 100 123
National Poisons Information Centre:	0800 POISON (0800 764 766)
Emergency Phone Number:	0800 CHEMCALL (0800 243 622) (24hr) (Emergencies Only)
Transport Emergency Phone Number:	111 - tell operator what service is needed: Fire, Ambulance or Police
Date of SDS Preparation	13 August 2020

Section 2: HAZARD IDENTIFICATION

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

EPA Approval No:	Fertilisers (subsidiary) – HSR002571
Pictograms:	
Signal Word:	**Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (oral)	H303	May be harmful if swallowed.	Acute Tox. 5
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
9.1D	H413	May cause long lasting harmful effects to aquatic life.	Aquatic Chronic 4

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.

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

INGREDIENT	CAS No.	CONTENT
Ammonium Nitrate	6484-52-2	10 - 70%

Section 4: FIRST AID MEASURES

Routes of Exposure:	
If in eyes:	Flush with plenty of water for several minutes, holding eyelids open if necessary. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
If on skin:	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/ attention.
If ingested:	Never give anything by mouth to an unconscious person. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
If inhaled:	Remove patient to fresh air. Keep at rest in comfortable position for breathing. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if needed.
Most important symptoms and effects, both acute and delayed	
Symptoms:	
Eyes:	Causes serious eye irritation.
Skin:	Not applicable.
Ingested:	May be harmful if swallowed.
Inhaled:	Not applicable.
Chronic:	Not applicable.
Notes to Doctor:	None known.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
Hazards from combustion products	At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.
Suitable Extinguishing media	When decomposing product is handled: Water (attention, larger quantities are necessary to stop the thermic decomposition). Unsuitable: Sand, Foam, Carbon dioxide (CO2) or Dry chemical.
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: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear approved protective clothing as detailed in Section 8. Evacuate all non-essential personnel from affected area. Ensure adequate ventilation.
Environmental precautions:
Avoid release to the environment. Do not allow into drains or water courses.
Methods and material for containment and cleaning up:
Use mechanical handling equipment. Rinse off remainders with water. Dispose according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Wash hands thoroughly after handling. Avoid release to the environment. Wear protective clothing as detailed in Section 8. Keep away from heat and sources of ignition. Avoid contact with eyes. Do not smoke.
Storage:	Keep out of reach of children. Keep away from combustible materials. The product is incombustible. However, it can lower the ignition temperature of combustible substances. Protect against contamination. Protect against humidity (product is hygroscopic and tends to cake or disintegrate) Keep away from direct sunlight. Protect against heat. When stored loosely do not mix with other fertilizers. Store well away from other substances, particularly from organic materials. If inappropriately or improperly stored caking or disintegration possible.

Section 8: EXPOSURE CONTROL/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.

ammonium nitrate (6484-52-2)	
DNEL/DMEL (workers)	
Long-term - systemic effects, dermal	5.12 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	36 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	2.56 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8.9 mg/m³
Long-term - systemic effects, dermal	2.56 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.45 mg/I
PNEC aqua (marine water)	0.045 mg/I
PNEC aqua (intermittent, freshwater)	4.5 mg/I
PNEC (STP)	
PNEC sewage treatment plant	18 mg/I

Engineering Controls:	If dusts are generated use local extraction ventilation to control.

Personal Protection Equipment:

Eyes:	Chemical goggles.
Skin/Hands:	Not required.
Respiratory:	If breathable dust is formed: Dust mask.
General:	Do not eat, drink or smoke when using this product. Do not breathe dust. Wash hands

	before breaks and after work. Avoid contact with skin and eyes.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Granular
Colour	Varying, according to dye or colour of the basic materials
Odour	Almost odourless
Odour Threshold	Not available
pH	Ca5 (100g/l @20^{o}C)
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Product is not flammable.
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Bulk Density	1.100 kg/m^3
Water Solubility	Mostly Soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Decomposes above 130^{o}C To avoid thermal decomposition, do not overheat., The product is not capable of self-sustaining progressive thermal decomposition (UN-Test S1).
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10: STABILITY AND REACTIVITY

Stability of Substance	Stable under normal conditions.
Possibility of hazardous reactions	Ammonia in contact with alkaline solutions. The formation of gaseous decomposition products builds up pressure in tightly closed containers.
Conditions to Avoid	None known.
Incompatible Materials	Inflammable, oxidizable substances, sourly reacting substances, alkalinely reacting substances.
Hazardous Decomposition Products	At temperatures above 130 °C, dangerous decomposition gases can be emitted: Nitrogen monoxide, nitrogen dioxide, dinitrogen oxide, ammonia, chloride, hydrogen chloride.

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	May be harmful if swallowed.
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.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Ammonium Nitrate (6484-52-2)	2950 mg/kg (rat)	>5000 mg/kg (rat)	>88.8 mg/l/4h (rat)

Section 12: ECOLOGICAL INFORMATION

HSNO Classes: 9.1D= May cause long lasting harmful effects to aquatic life.

Product:	
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Bioaccumulation	Bioaccumulation is unlikely.
Mobility in Soil	No data available
Other adverse effects	No data available

Product:

Route	Species	Duration	Value LC50/EC50
EC50 Daphnia 1	Daphnia Magna	48 hr	555 mg/L
EC50 Fish	Cyprinus carpio (Common carp)	48 hr	442 mg/L
Aquatic, Algal	Algae	168 h	83 mg/L
Toxicity to bacteria	Activated sludge	0.5 h	>100 mg/L

Individual component information (Please refer to www.epa.govt.co.nz for full details):

Ammonium Nitrate (6484-52-2)

Route	Species	Duration	Value LC50/EC50
EC50 Daphnia 1	Daphnia Magna	48 hr	>490 mg/L
EC50 other aquatic organisms 1	Cyprinus carpio (Common carp)	48 hr	447 mg/L
Aquatic, Algal	Algae	10 d	1700 mg/L

Do not allow to enter waterways.

Section 13: DISPOSAL INFORMATION

Disposal Method:	Collection into sealable containers and dispose of in an appropriate land fill. Reuse or recycle where possible. If practicable apply excess fertiliser at recommended rates to appropriate land. Observe any local authority restrictions that may apply.
Container Disposal:	Rinse containers thoroughly prior to reuse. Otherwise render unusable and dispose of as waste.
Precautions or 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

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017	
EPA Approval Code:	Fertilisers (subsidiary) – HSR002571
HSNO Classification:	6.1E(dermal), 6.4A, 9.1D

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	10 000kg (9.1D)
Emergency Response Plan	10 000kg (9.1D)
Secondary Containment	10 000kg (9.1D)

Restriction of Use	Only use for the intended purpose.

Section 16: OTHER INFORMATION

Glossary

EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
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

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Please contact Ravensdown, if further information is required.

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