Safety Data Sheet

40% Potash Super

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name:	**40% Potash Super**
Product Code:	N/A
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	10 August 2022

Section 2: HAZARD 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	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

INGREDIENT	CAS No.	CONTENT
Superphosphate	8011-76-5	60%
Potassium Chloride	7447-76-5	40%

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. If eye irritation persists: Get medical advice/attention.
If on skin:	Wash affected area thoroughly with soap and water.
If ingested:	Never give anything by mouth to an unconscious person. If swallowed rinse mouth. If large quantities are ingested give 1 or 2 glasses of water to dilute. Seek medical advice.
If inhaled:	Remove patient to fresh air. Lay down and keep warm and rested. 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 severe eye irritation.
Skin:	Not applicable.
Ingested:	Not applicable.
Inhaled:	Not applicable.
Notes to Doctor:	Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Hazard Type	Non Flammable
Hazards from combustion products	Sulphur oxides, phosphorous oxides, potassium oxides, possible toxic fumes
Suitable Extinguishing media	Based on surrounding materials.
Precautions for firefighters and special protective clothing	Breathing apparatus, goggles and protective gloves.
HAZCHEM CODE	**None allocated**

Section 6: ACCIDENTIAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear appropriate protective clothing as detailed in Section 8. Exclude non-essential people from the area.
Environmental precautions:
Avoid from entering drains, waterways or sewers.
Methods and material for containment and cleaning up:
Contain spill and sweep up. Collect and place in sealable containers. Avoid generating dust. Reuse or recycle where possible. Dispose of according to Section 13.

Section 7: HANDLING AND STORAGE

Handling:	Read label before use. Wash hands after handling. Avoid generating dusts, do not breathe dusts. Avoid unintended release into the environment. Wear protective clothing as detailed in Section 8.
Storage:	Store away from incompatible materials listed in Section 10.

	Store in cool, dry, well-ventilated area. Keep out of the reach of children.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance		**TWA** **ppm** **mg/m³**	**STEL** **ppm** **mg/m³**
Particulates not otherwise classified:	Inspirable dust	10mg.m^{-3}	
	Respirable dust	3mg.m^{-3}	

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 APRIL 2022 13TH EDITION.

Engineering Controls:	Handle in well ventilated area. Minimise generation of airborne dust.

Personal Protection Equipment: 	
Eyes:	Wear close fitting safety glasses or goggles to prevent dust getting in eyes. Ensure eye wash facilities should be available.
Skin/Hands:	Wear protective clothing and gloves where there is a risk of moderate to high skin contamination from product.
Respiratory:	Wear particulate respirator where there is a risk of breathing in moderate to high levels of airborne dust.
General:	Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing daily after work.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Granule
Colour	Potassium Chloride is a red chip, Superphosphate can be grey or brown
Odour	None
Odour Threshold	Not available
pH	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
Vapour Density	Not available
Specific Gravity	Not available
Bulk Density	Not available
Water Solubility	Partially soluble
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	Stable under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	No specific conditions.
Incompatible Materials	No specific incompatibilities.
Hazardous Decomposition Products	Sulphur oxides, phosphorous oxides, potassium oxides, possible toxic fumes

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Swallowed	Not triggered but may have a diuretic effect. Over exposure may cause mucous membrane irritation and coughing.
Dermal	Not applicable.
Inhalation	Not triggered however elevated exposure may result in mucous membrane irritation (nose & throat).
Eye	Causes severe eye irritation. Direct contact may result in lachrymation (tears), pain, redness and conjunctivitis.
Skin	Not triggered however prolonged and repeated skin exposure may result in irritation, skin rash and dermatitis.

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.

Section 12: ECOLOGICAL INFORMATION

Slightly harmful to the environment. Avoid unintended release into streams and waterways.

Product:	
Persistence and degradability	No data available.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	Fluorosis (see below)

Fluorosis, or fluoride poisoning, is often mistakenly called phosphate poisoning or superphosphate poisoning, because it is most commonly results when animals gain access to phosphate fertilisers. In fact, it is the fluoride (F) component of the fertiliser that is the issue, as all naturally occurring phosphate (P) deposits also contain fluoride.

To minimise the risk of fluorosis, stock should not be allowed to graze pasture topdressed with phosphate fertiliser for 21 days or until at least 25 mm of rain has fallen. Note that this will minimise but not necessarily eliminate the risk of poisoning. Where it is not possible to avoid grazing topdressed pasture, applying well-granulated fertiliser to dry pasture is probably better than applying dusty product, especially to dewy or wet pasture. Avoid overgrazing this pasture to minimise uptake of fertiliser granules from the soil.

So for milking cows, the best estimate is that somewhere between 3 g and 25 g F (100g - 2kg of phosphate fertiliser) is likely to cause toxicity problem, based on F content in the table below. Ewes are probably affected at similar rates per bodyweight, eg 15-150g of fertiliser.

Fertiliser	F Content (%)	F Content (g/kg)
Single superphosphate (SSP)	1.1 - 2.0	11 - 20

Section 13: DISPOSAL INFORMATION

Disposal Method:	Reuse or recycle where possible. If practicable apply excess fertiliser at recommended rates to appropriate land. Collection into sealable containers and dispose of in an approved land fill. 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 5433:2020

Section 15: REGULATORY INFORMATION

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017	
EPA Approval Code:	Fertilisers (subsidiary) - HSR002571
GHS Classification:	Eye irritation Cat. 2

HSW (HS) Regulations 2017	**Trigger Quantity**
Signage Trigger Quantities (Schedule 3)	Not required
Emergency Response Plan (Schedule 5)	Not required
Secondary Containment (Schedule 5)	Not required
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
Restrictions of use	None known.

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.
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 April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact Ravensdown, if further information is required.

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