


Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

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| Product Name: | Ammonium Sulphate Nitrate 26N +13S |
| 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 | 13 August 2020 |

Section 2: HAZARD IDENTIFICATION

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

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| 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 |

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| | easy to do. Continue rinsing. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |

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| Storage Code | Storage Statement |
| None allocated | |

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| 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 - 45% |

Section 4: FIRST AID MEASURES

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| 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

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| 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 | 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

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| 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

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| 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)

| Substance | TWA ppm mg/m ³ | STEL 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. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

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| 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/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 2.56 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 8.9 mg/m ³ |
| Long-term - systemic effects, dermal | 2.56 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.45 mg/l |
| PNEC aqua (marine water) | 0.045 mg/l |
| PNEC aqua (intermittent, freshwater) | 4.5 mg/l |
| PNEC (STP) | |
| PNEC sewage treatment plant | 18 mg/l |

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| Engineering Controls: | If dusts are generated use local extraction ventilation to control. |
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Personal Protection Equipment:



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| Eyes: | Chemical goggles. |
| Skin/Hands: | Not required. |

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| 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

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| Appearance | Granular |
| Colour | Off-white to tan |
| Odour | Almost odourless |
| Odour Threshold | Not available |
| pH | Ca4 (100g/l @20°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 170°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

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| 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 170 °C, nitrogen monoxide, nitrogen dioxide, dinitrogen oxyde and ammonia can be released. |

Section 11: TOXICOLOGICAL INFORMATION

Acute Effects:

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| Swallowed | May be harmful if swallowed. |
| Dermal | Not applicable. |
| Inhalation | Not applicable. |
| Eye | Causes serious eye irritation |
| Skin | Not applicable. |

Chronic Effects:

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| 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.

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| 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

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| 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

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| 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) |

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| Secondary Containment | 10 000kg (9.1D) |
| Restriction of Use | Only use for the intended purpose. |

Section 16: OTHER INFORMATION

Glossary

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| 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

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 Ravensdown, if further information is required.

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Review Date:

13 August 2025