



Ammonium Sulphate

Safety Data Sheet

1. Identification

Product

Product name	Ammonium Sulphate
Other names	GAS, SAS, Ammonium sulfate, Sulphuric acid diammonium salt, Sulphate of ammonia
HSNO approval	HSR002571
Approval description	Fertilisers (Subsidiary Hazard) Group Standard 2020
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packing group	NA
Hazchem code	NA
Uses	Fertiliser

Company Details

Company	EGMONT COMMERCIAL
Address	PO Box 37-326 Christchurch 8245 New Zealand
Website	www.egmontcommercial.co.nz
Telephone	Auckland (09) 838 2960 Christchurch (03) 349 5546
Email	sales@egmontnz.com

Emergency Telephone Number: 0800 764 766 (POISON CENTRE)

2. Hazard Identification

Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002571, Fertilisers (Subsidiary Hazard) Group Standard 2020). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

Classes

Acute oral toxicity Category 4

Hazard Statements

H302 - Harmful if swallowed.

SYMBOLS

WARNING



Other classifications

No other classifications are known to apply.

Precautionary Statements

Prevention	P102 - Keep out of reach of children. P103 - Read label before use. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment.
Response	P101 - If medical advice is needed, have product container or label at hand. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. P330 - Rinse mouth.
Storage	No storage statements.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.



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3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Ammonium sulphate	7783-20-2	100%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing any symptoms.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs: Get medical advice/attention.

Skin contact This product is non-irritating to skin. No further measures should be required.

Inhaled Generally, inhalation of dusts is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is non-flammable.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Ammonia, nitrogen oxides, oxides of sulphur, carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment: No special measures are required.

Hazchem code: NA

6. Accidental Release Measures

Containment If greater than 1000kg is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to storm water.

Emergency procedures If a significant spill occurs: Stop leak if safe/necessary; Isolate area. Collect spill – see below; Transfer to container for disposal. Dispose of according to guidelines below (Section 13).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Disposal Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions No special protective clothing is normally necessary.



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7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Avoid generating dusts. Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Ammonium sulphate	-	-

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General	Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use, or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.
Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely.
Skin	Protective gloves and clothing are not normally necessary. However, it is prudent to wear gloves when handling chemicals in bulk or for an extended period of time.
Respiratory	Respirator is not required under normal use. Ensure adequate natural ventilation. If product is being used in confined conditions, the use of a dust mask or respirator with a particulate filter may be preferred.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	white to grey/brown granules
Odour	odourless
Odour Threshold	no data
pH	5-6 (50g/L in water at 20°C)
Freezing/melting point	280°C (decomposes)
Boiling Point	no data
Flashpoint	no data
Flammability	no data
Upper & lower flammable limits	no data
Vapour pressure	no data
Vapour density	no data
Specific gravity/density	specific gravity: 1.77g/cm ³ , bulk density: 1050kg/m ³
Solubility	744g/L at 20°C
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	no data
Particle Characteristics	no data



10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames. Moisture.
Incompatible groups	Oxidisers.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Ammonia, nitrogen oxides and sulphur oxides.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: Ingestion of large quantities may lead to nausea, vomiting, diarrhoea, thirst.
IF IN EYES: direct contact may result in tearing, pain, redness and conjunctivitis.
IF ON SKIN: prolonged and repeated skin exposure may result in irritation, skin rash.
IF INHALED: dust may be slightly irritating. Exposure may cause coughing and irritate mucous membranes.
CHRONIC TOXICITY: not known.

Supporting Data

Acute	Oral	LD ₅₀ 's for Ammonium sulphate 640 mg/kg (mouse), 2840mg/kg (rat).
	Dermal	No data available.
	Inhaled	No data available.
	Eye	Ammonium sulphate is not considered to be an eye irritant.
	Skin	Ammonium sulphate is not considered to be a skin irritant.
Chronic	Sensitisation	Ammonium sulphate is not considered a sensitizer.
	Mutagenicity	Ammonium sulphate is not considered a mutagen.
	Carcinogenicity	Ammonium sulphate is not considered a carcinogen.
	Reproductive / Developmental	Ammonium sulphate is not considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	Ammonium sulphate is not considered a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

Ammonium sulphate is considered harmful towards aquatic organisms and terrestrial vertebrates.

Supporting Data

Aquatic	EC ₅₀ 's for Ammonium sulphate 48 mg/l (96hr, Catla catla), 81 - 130 mg/l (96hr, Crangon crangon (Crustacea)).
Bioaccumulation	No data
Degradability	No data
Soil	No evidence for soil toxicity.
Terrestrial vertebrate	Ammonium sulphate LD ₅₀ : 640 mg/kg (mouse), 2840mg/kg (rat).
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.



14. Transport Information

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

IMDG

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

IATA

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002571, Fertilisers (Subsidiary Hazard) Group Standard 2020. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Not required (non pooling substance)
Signage	Required if > 10000kg is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.



16. Other Information

Abbreviations

Approval Code	Approval HSR002571, Fertilisers (Subsidiary Hazard) Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC₅₀	Median effect concentration, being a statistically derived concentration of a substance that can be expected to cause an adverse effect in 50% of organisms; or a 50% reduction in growth or in the growth rate of organisms.
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Median Lethal Dose – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Median Lethal Concentration – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
January 2020	Not applicable – new SDS
November 2021	HSNO to GHS, controls, Approval number
August 2026	5 yearly review

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 21 1040951.

