

1. IDENTIFICATION

Product Name Ammonium Sulphate

 Other Names
 Ammonium sulfate (2:1); Diammonium sulfate; Diammonium sulphate

 Uses
 Fertiliser uses; Laboratory use; Food additive; Manufacture of substances.

Chemical Family Inorganic salt
Chemical Formula (NH4)2SO4

Chemical Name Sulfuric acid, diammonium salt

Product Description No Data Available

Contact Details of the Supplier of this Safety Data Sheet

 Organisation
 Location
 Telephone

 Redox Ltd
 2 Swettenham Road
 +61-2-97333000

Minto NSW 2566 Australia

Redox Ltd 11 Mayo Road +64-9-2506222

Wiri Auckland 2104 New Zealand

Redox Inc. 3960 Paramount Boulevard +1-424-675-3200

Suite 107

Lakewood CA 90712

USA

Redox Chemicals Sdn Bhd Level 2, No. 8, Jalan Sapir 33/7 +60-3-5614-2111

Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation Location Telephone Poisons Information Centre Westmead NSW 1800-251525 131126 Chemcall Australia 1800-127406 +64-4-9179888 +64-4-9179888 Chemcall Malaysia Chemcall New Zealand 0800-243622 +64-4-9179888 National Poisons Centre New Zealand 0800-764766

CHEMTREC USA & Canada 1-800-424-9300 CN723420

+1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not Scheduled



Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Signal Word None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification NOT hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Ammonium sulphate	(NH4)2SO4	7783-20-2	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting unless directed to do so by medical

personnel. Get medical advice/attention if large amounts are ingested or if you feel unwell. Never give anything by mouth

to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye

irritation persists, get medical advice/attention.

Skin IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation

occurs, get medical advice/attention.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms

persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is

difficult.

Advice to Doctor Treat symptomatically.

Exposure

Medical Conditions Aggravated by No information available.

5. FIRE FIGHTING MEASURES

General Measures If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

Flammability Conditions Non-combustible; Product itself does not burn.

Extinguishing Media If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Use

extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and Explosion Hazard Flammable ammonia gas may be released in a fire.

Hazardous Products of

Combustion

Fire may produce irritating and/or toxic gases, including Ammonia, Nitrogen oxides (NOx), Sulphur oxides (SOx).

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may cause pollution.

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

Flash Point
No Data Available
Lower Explosion Limit
No Data Available
Upper Explosion Limit
No Data Available
Auto Ignition Temperature
No Data Available
Hazchem Code
No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid dust formation. Avoid breathing dust

and contact with eyes, skin and clothing.

Clean Up Procedures Sweep/shovel up and place it into suitable containers for later disposal (see SECTION 13).

*Vacuuming or wet sweeping may be used to avoid dust dispersal.

Containment Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.

Decontamination Rinse away residues with water.

Environmental Precautionary

Measures

Prevent entry into drains and waterways.

Evacuation Criteria Spill or leak area should be isolated immediately. Keep unauthorised personnel away.

Personal Precautionary Measures Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid breathing dust and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8).

Storage Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect against physical

damage. Protect against moisture. Keep away from incompatible materials (see SECTION 10).

Container Keep in the original container.

*Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all

warnings and precautions listed for the product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

GeneralNo specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards:

- Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m3 (measured as inhalable dust).
- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m3 (total); TWA = 3 mg/m3 (respirable).
- OSHA PEL (Particulates not otherwise regulated): TWA = 15 mg/m3 (total); TWA = 5 mg/m3 (respirable).

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment - Respiratory protection: In case of inadequate ventilation or with high concentrations, wear respiratory protection.

Recommended: Dust mask/particulate respirator. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen deficient atmospheres. Use respirators and components tested and approved under appropriate

government standards (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with sideshields. Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Use equipment for eye protection tested and approved under appropriate government standards.

- Hand protection: Handle with gloves. Recommended: Wear impervious gloves.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Wear impervious protective clothing, incl. boots, lab coat, apron or coveralls, as appropriate. The type of protective equipment must be selected according to the concentration and amount of the hazardous substance(s) at the specific workplace.

Special Hazards Precaustions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off contaminated clothing and

wash it before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid

Appearance Powder, flake, crystalline, granular

Odour Odourless
Colour White

рΗ No Data Available No Data Available Vapour Pressure **Relative Vapour Density** No Data Available **Boiling Point** No Data Available **Melting Point** >280 °C (decomposes) **Freezing Point** No Data Available Solubility Soluble in water **Specific Gravity** No Data Available **Flash Point** No Data Available **Auto Ignition Temp** No Data Available **Evaporation Rate** No Data Available

Bulk Density

No Data Available

Corrosion Rate

No Data Available

Decomposition Temperature No Data Available

Density 1.77 g/cm3

Specific HeatNo Data AvailableMolecular Weight132.14 g/molNet Propellant WeightNo Data AvailableOctanol Water CoefficientNo Data AvailableParticle SizeNo Data AvailablePartition CoefficientNo Data Available

Saturated Vapour Concentration No Data Available

Vapour TemperatureNo Data AvailableViscosityNo Data AvailableVolatile PercentNo Data AvailableVOC VolumeNo Data Available

Additional Characteristics

No information available.

Potential for Dust Explosion

No information available.

Fast or Intensely Burning
Characteristics

Flame Propagation or Burning Rate of Solid Materials

No information available.

Non-Flammables That Could Contribute Unusual Hazards to a No information available.

Properties That May Initiate or Contribute to Fire Intensity

Non-combustible: Product itself does not burn.

Reactions That Release Gases or

Fire may produce irritating and/or toxic gases, including Ammonia, Nitrogen oxides (NOx), Sulphur oxides (SOx).

Vapours

Flammable ammonia gas may be released in a fire.

Release of Invisible Flammable

Vapours and Gases

10. STABILITY AND REACTIVITY

General Information No information available.

Chemical Stability Stable under recommended storage conditions.

Conditions to Avoid Avoid dust formation.

Materials to Avoid Incompatible/reactive with strong bases, strong oxidising agents.

Hazardous Decomposition

Products

Fire or heat will produce irritating and/or toxic fumes, including Ammonia, Nitrogen oxides (NOx), Sulphur oxides (SOx).

Hazardous Polymerisation Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information Information on possible routes of exposure:

- Ingestion: Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhoea. It presents little toxicity unless large amounts are ingested, in which case, vomiting and diarrhoea are likely.

- Eye contact: May cause eye irritation, redness, and pain.

- Skin contact: May cause skin irritation. Symptoms include redness, itching, and pain.

- Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Chronic effects: No information available.

Acute

Ingestion Acute toxicity (Oral):

- LD50, Rat: 4,250 mg/kg [Supplier's SDS].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity No information available.

Persistence/Degradability Due to the inorganic nature of the substance standard biodegradation testing systems are not applicable. In aqueous

solution, ammonium sulfate is completely dissociated into the ammonium ion (NH4+) and the sulfate anion (SO4 2-).

Hydrolysis of ammonium sulfate does not occur.

Mobility No information available.

Environmental Fate Prevent entry into drains and waterways.

Bioaccumulation Potential Based on the high water solubility and the ionic nature, ammonium sulfate is not expected to adsorb or bioaccumulate to

a significant extent.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal

facility. Processing, use or contamination of this product may change the waste management options.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
No Data Available
UN Number
No Data Available

UN NumberNo Data AvailableHazchemNo Data AvailablePack GroupNo Data AvailableSpecial ProvisionNo Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name Ammonium Sulphate
Class No Data Available
Subsidiary Risk(s) No Data Available
No Data Available

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name Ammonium Sulphate
Class No Data Available

Subsidiary Risk(s) No Data Available

No Data Available

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
No Data Available
UN Number
No Data Available

Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name Ammonium Sulphate Class No Data Available Subsidiary Risk(s) No Data Available **UN Number** No Data Available Hazchem No Data Available **Pack Group** No Data Available **Special Provision** No Data Available **EMS** No Data Available

Marine Pollutant No

Comments NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name
Class
No Data Available
Subsidiary Risk(s)
No Data Available
UN Number
No Data Available
Hazchem
No Data Available
Pack Group
No Data Available
Special Provision
No Data Available

Comments NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020 HSR002503

*HSR002770 (Revoked)

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) Not Determined

Europe (REACh) Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

16. OTHER INFORMATION

Related Product Codes AMSULB0005, AMSULB0017, AMSULB0400, AMSULB0500, AMSULB1000, AMSULB1000, AMSULB1001, AMSULB1002,

AMSULB1003, AMSULB1004, AMSULB1800, AMSULB2020, AMSULB3100, AMSULB3101, AMSULB4500, AMSULB4501, AMSULB7300, AMSULB8000, AMSULB9000, AMSULG0001, AMSULG0003, AMSULG0005, AMSULG0007, AMSULG0010,

Form 21047, Revision 3, Page 8 of 10, 01-Feb-2024 02:01:51

AMSULG0015, AMSULG0016, AMSULG0017, AMSULG0018, AMSULG0020, AMSULG0030, AMSULG0050, AMSULG0098, AMSULG0400, AMSULG0600, AMSULG0700, AMSULG0701, AMSULG0702, AMSULG0720, AMSULG0721, AMSULG1000, AMSULG1001, AMSULG1002, AMSULG1003, AMSULG1004, AMSULG1005, AMSULG1017, AMSULG1020, AMSULG1023, AMSULG1042, AMSULG1044, AMSULG1046, AMSULG1062, AMSULG2010, AMSULG2020, AMSULG2021, AMSULG2022, AMSULG2600, AMSULG2605, AMSULG2800, AMSULG3200, AMSULG3300, AMSULG3400, AMSULG3405, AMSULG3600, AMSULG5300, AMSULG5400, AMSULG6000, AMSULG6001, AMSULG6015, AMSULG9000, AMSULP0001, AMSULP0003, AMSULP0005, AMSULP0007, AMSULP0008, AMSULP0010, AMSULP0011, AMSULP0012, AMSULP0013, AMSULP0015, AMSULP0016, AMSULP0020, AMSULP0023, AMSULP0031, AMSULP0032, AMSULP0042, AMSULP0050, AMSULP0071, AMSULP0075, AMSULP0076, AMSULP0085, AMSULP0087, AMSULP0088, AMSULP0090, AMSULP0093, AMSULP0094, AMSULP0095, AMSULP0096, AMSULP0098, AMSULP0099, AMSULP0142, AMSULP0400, AMSULP0500, AMSULP0590, AMSULP0595, AMSULP0599, AMSULP0600, AMSULP0601, AMSULP0604, AMSULP0605, AMSULP0606, AMSULP0607, AMSULP0608, AMSULP0700, AMSULP0800, AMSULP0900, AMSULP0901, AMSULP1000, AMSULP1001, AMSULP1002, AMSULP1003, AMSULP1004, AMSULP1005, AMSULP1006, AMSULP1007, AMSULP1008, AMSULP1009, AMSULP1010, AMSULP1011, AMSULP1013, AMSULP1014, AMSULP1015, AMSULP1016, AMSULP1017, AMSULP1018, AMSULP1019, AMSULP1020, AMSULP1021, AMSULP1022, AMSULP1023, AMSULP1024, AMSULP1025, AMSULP1026, AMSULP1027, AMSULP1028, AMSULP1029, AMSULP1030, AMSULP1031, AMSULP1032, AMSULP1033, AMSULP1034, AMSULP1035, AMSULP1036, AMSULP1037, AMSULP1038, AMSULP1039, AMSULP1040, AMSULP1041, AMSULP1042, AMSULP1043, AMSULP1044, AMSULP1045, AMSULP1046, AMSULP1047, AMSULP1048, AMSULP1049, AMSULP1050, AMSULP1051, AMSULP1052, AMSULP1053, AMSULP1054, AMSULP1055, AMSULP1060, AMSULP1062, AMSULP1075, AMSULP1095, AMSULP1099, AMSULP1100, AMSULP1101, AMSULP1102, AMSULP1103, AMSULP1104, AMSULP1105, AMSULP1107, AMSULP1109, AMSULP1110, AMSULP1111, AMSULP1113, AMSULP1114, AMSULP1115, AMSULP1117, AMSULP1118, AMSULP1119, AMSULP1120, AMSULP1124, AMSULP1125, AMSULP1126, AMSULP1127, AMSULP1128, AMSULP1129, AMSULP1132, AMSULP1140, AMSULP1142, AMSULP1144, AMSULP1146, AMSULP1147, AMSULP1148, AMSULP1149, AMSULP1150, AMSULP1151, AMSULP1153, AMSULP1155, AMSULP156, AMSULP1159, AMSULP1169, AMSULP1170, AMSULP1200, AMSULP1201, AMSULP1250, AMSULP1253, AMSULP1256, AMSULP1300, AMSULP1301, AMSULP1400, AMSULP1401, AMSULP1500, AMSULP1600, AMSULP1601, AMSULP1700, AMSULP1701, AMSULP1800, AMSULP1801, AMSULP1802, AMSULP1803, AMSULP1804, AMSULP1805, AMSULP1806, AMSULP1807, AMSULP1808, AMSULP1809, AMSULP1810, AMSULP1811, AMSULP1812, AMSULP1813, AMSULP1814, AMSULP1815, AMSULP1816, AMSULP1817, AMSULP1818, AMSULP1819, AMSULP1820, AMSULP1830, AMSULP1900, AMSULP2000, AMSULP2001, AMSULP2005, AMSULP2010, AMSULP2011, AMSULP2012, AMSULP2013, AMSULP2015, AMSULP2018, AMSULP2019, AMSULP2020, AMSULP2021, AMSULP2022, AMSULP2024, AMSULP2025, AMSULP2026, AMSULP2030, AMSULP2035, AMSULP2100, AMSULP2101, AMSULP2200, AMSULP2201, AMSULP2300, AMSULP2400, AMSULP2500, AMSULP2501, AMSULP2600, AMSULP2601, AMSULP2602, AMSULP2700, AMSULP2701, AMSULP2702, AMSULP2800, AMSULP2801, AMSULP2802, AMSULP2900, AMSULP3000, AMSULP3001, AMSULP3002, AMSULP3003, AMSULP3004, AMSULP3100, AMSULP3101, AMSULP3200, AMSULP3300, AMSULP3400, AMSULP3405, AMSULP3500, AMSULP3501, AMSULP3504, AMSULP3505, AMSULP3506, AMSULP3507, AMSULP3508, AMSULP3509, AMSULP3510, AMSULP3515, AMSULP3517, AMSULP3525, AMSULP3900, AMSULP4000, AMSULP4500, AMSULP4501, AMSULP4600, AMSULP4700, AMSULP4800, AMSULP5000, AMSULP5100, AMSULP5200, AMSULP5300, AMSULP5400, AMSULP6000, AMSULP6001, AMSULP6100, AMSULP6300, AMSULP6500, AMSULP6600, AMSULP6800, AMSULP6900, AMSULP7000, AMSULP7200, AMSULP7300, AMSULP7400, AMSULP7500, AMSULP7501, AMSULP7505, AMSULP7600, AMSULP7700, AMSULP7701, AMSULP7800, AMSULP8000, AMSULP8001, AMSULP8100, AMSULP8500, AMSULP8600, AMSULP8700, AMSULP9000, AMSULP9010, AMSULP9500, AMSULP9501, AMSULP9502, AMSULP9503, AMSULP9600, AMSULP9700, AMSULP9800, AMSULP9900

Revision

Revision Date

Key/Legend

20 Jul 2020

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square Centimetres

CO2 Carbon Dioxide

COD Chemical Oxygen Demand

deg C (°C) Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury inH2O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

Ib Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Heath and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight