

# SAFETY DATA SHEET



Revision date: 01-May-2024

Revision Number 8

## Section 1: Identification

### Product identifier

**Product Name** AMMONIUM NITRATE LIQUID

**Product Code(s)** 000022035801

### Other means of identification

**Proper shipping name** HOT AMMONIUM NITRATE, LIQUID

**UN number or ID number** 2426

**Synonyms** Hot ammonium nitrate liquid, ANSOL, Ammonium nitrate liquid >80% - <=93%, Ammonium nitrate solution >80% - <=93%

**Pure substance/mixture** Mixture

### Recommended use of the chemical and restrictions on use

**Recommended use** Production of emulsion explosives. Restricted to professional users.

**Uses advised against** No information available.

### Details of manufacturer or importer

#### Supplier

Orica Australia Pty Ltd  
ABN: 99 004 117 828  
1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9665 7111

Facsimile: +61 3 9665 7937

### Emergency telephone number

Emergency telephone number **AUSTRALIA: 1 800 033 111 (ALL HOURS)**  
**INTERNATIONAL AUSTRALIA: +61 3 9663 2130 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).  
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

### GHS Classification

<b>Oxidizing liquids</b>	Category 3
<b>Serious eye damage/eye irritation</b>	Category 2

**Label elements**Flame over circle  
Exclamation mark**Signal word**  
WARNING**Hazard statements**H272 - May intensify fire; oxidizer  
H319 - Causes serious eye irritation**Precautionary Statements - Prevention**Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep away from clothing and other combustible materials.  
Wash hands thoroughly after handling.  
Wear protective gloves/clothing and eye/face protection.**Precautionary Statements - Response**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish..

**Precautionary Statements - Storage**

No storage statements.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

**Other hazards which do not result in classification**

Contact with acids liberates toxic gas.

**Section 3: Composition and information on ingredients**

Chemical name	CAS No.	Weight-%
Ammonium nitrate	6484-52-2	>80%-<=93%
Water	7732-18-5	7-19%
Buffering agents	-	<10%
Organics	-	<0.2%
Chlorine compounds	-	<0.02%

**Additional information**

Hot aqueous solution with not more than 0.2% combustible material and containing at least 7% water. Maximum content of chloride ions &lt; 0.02%.

**Section 4: First aid measures****Description of first aid measures****General advice**

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

CAUTION: the material is very hot (130°C maximum) so has the potential to cause severe thermal burns. Urgent hospital treatment is likely to be needed. Show this safety data sheet to the doctor in attendance.

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<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Remove clothing if contaminated and wash skin. Contact with molten materials requires immediate medical assistance.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Contact with product at elevated temperatures can result in thermal burns. For skin burns, cool skin area with rapidly with cold water. Nitrates can be absorbed through cut, burnt or broken skin. (Call a physician if symptoms occur). For severe burns, immediate medical attention is required.
<b>Ingestion</b>	Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. See section 8 for more information.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Irritation. May cause redness and tearing of the eyes. Contact with hot material can cause thermal burns. Nitrates can be absorbed through cut, burnt or broken skin.
<b>Effects of Exposure</b>	No information available.

**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	<p>Hot material can cause severe thermal and chemical burns due to temperature and oxidising properties. Treat initially as for scalds. Delayed shock is a possibility. This material contains ammonium nitrate which can be absorbed through burnt skin. If exposure is suspected treat as outlined below.</p> <p>Clinical findings: The smooth muscle relaxant effect of nitrate/nitrite salts may lead to headache, dizziness and marked hypotension. Cyanosis is clinically detectable when approximately 15% of the haemoglobin has been converted to methaemoglobin (ferric iron). Symptoms such as headache, dizziness, weakness and dyspnoea occur when methemoglobin concentrations are 30% to 40%; at levels of about 60% stupor, convulsions, coma and respiratory paralysis occur and the blood is a chocolate brown colour. At higher levels death may result. Spectrophotometric analysis can determine the presence and concentration of methemoglobin in the blood.</p> <p>Treatment:</p> <ol style="list-style-type: none"><li>1. Give 100% oxygen.</li><li>2. In cases of (a) ingestion: use gastric lavage, (b) contamination of skin (unburnt or burnt): continue washing to remove salts.</li><li>3. Observe blood pressure and treat hypotension if necessary.</li><li>4. When methaemoglobin concentrations exceed 40% or when symptoms are present, give methylene blue 1 or 2 mg/kg body weight in a 1% solution by slow intravenous injection. If cyanosis has not been resolved within one hour a second dose of 2 mg/kg body weight may be given. The total dose should not exceed 7 mg/kg body weight as unwanted effects such as dyspnoea, chest pain, vomiting, diarrhoea, mental confusion and cyanosis may occur. Without treatment methaemoglobin levels of 20-30% revert to normal within 3 days.</li><li>5. Bed rest is required for methaemoglobin levels in excess of 40%.</li><li>6. Continue to monitor and give oxygen for at least two hours after treatment with methylene blue.</li></ol>
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7. Consider transfer to centre where haemoperfusion can be performed to remove the nitrates/nitrites from the blood if the condition of the patient is unstable.
8. Following inhalation of oxides of nitrogen the patient should be observed in hospital for 24 hours for delayed onset of pulmonary oedema.

Further observation for 2-3 weeks may be required to detect the onset of the inflammatory changes of bronchiolitis fibrosa obliterans.

## Section 5: Firefighting measures

### Suitable Extinguishing Media

**Suitable extinguishing media** Water spray. Flood fire area with water from a distance.

**Unsuitable extinguishing media** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Extinguishing methods based on smothering are ineffective in the case of oxidizing agents.

### Specific hazards arising from the chemical

**Specific hazards arising from the chemical** WARNING:  
Explosion risk in case of fire, especially if contaminated or confined. Molten product may explode from friction, shock or containment. In the case of an intense fire evacuate all personnel to at least 1000 m.

Oxidizing substance. Increases intensity of a fire, even in the absence of oxygen. Ammonium nitrate on its own is not combustible, however, it supports the combustion of other materials. Contact with combustible material may cause fire. Decomposes on heating emitting irritating white fumes and/or brown fumes. Brown fumes indicate the presence of toxic oxides of nitrogen. Containers may explode when heated.

**Hazardous combustion products** Nitrogen oxides. Ammonia. Nitric acid. Ammonium nitrate fumes.

### Special protective actions for fire-fighters

**Special protective equipment and precautions for fire-fighters** Caution - material can be very hot. Oxidizer. Increases intensity of a fire.

WARNING:  
A major fire may involve a risk of explosion. Evacuate area immediately. Allow fire to burn out. An adjacent detonation may also involve the risk of explosion. Heating can cause decomposition of the material, which can lead to the containers exploding. Confinement of material may result in detonation.

In the case of an intense fire evacuate all personnel to a least 1000 metres. Police and emergency personnel should be notified immediately. If possible remove vehicles and further heat and ignition sources from area. Do not return to areas until the site has completely cooled down.

Decomposes on heating emitting irritating white fumes and/or brown fumes. Brown fumes indicate the presence of toxic oxides of nitrogen. On detection of fire the compartment(s) should be opened up to provide maximum ventilation. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if there is a risk of exposure to products of combustion/decomposition. If safe to do so, remove containers from path of fire. If safe to do so, prevent molten material from being confined in drains, pipes, etc. Fires to be fought from a protected location. Cool containers with flooding quantities of water until well after fire is out.

**Hazchem code**

1Y

## Section 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash thoroughly after handling. Caution: material can be very hot and contact may result in thermal burns.

**Other information** Keep combustibles (wood, paper, oil, etc) away from spilled material. Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

In the case of a transport accident notify the Police, Regulatory Authorities and Orica Australia Pty Ltd (Telephone: 1800 033 111 -- 24 hour service) and/or Orica New Zealand Ltd (Telephone: 0800 734 607 -- 24 hour service) or Orica International (Telephone: +61 3 9663 2130 -- 24 hour service Australia).

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Never return spill or leaks to original containers for re-use. Wash area down with excess water. Ensure that contaminated material (clothing, pallets) is thoroughly washed.

**Section 7: Handling and storage****Precautions for safe handling**

**Advice on safe handling** Hot ammonium nitrate liquid can cause severe burns due to its temperature and the oxidising properties of ammonium nitrate. Avoid skin and eye contact and breathing in vapour, mists and aerosols. A significant risk of exposure exists when clearing blocked lines or valves. Extreme care should be taken in this situation to avoid contact with the material. Handle in accordance with good industrial hygiene and safety practice. Handle with care. Ensure adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse. Keep out of reach of children. Do not mix with other chemicals.

**General hygiene considerations** Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store in a compatible, insulated, heated, bunded tank away from combustible materials. Australian Standard/New Zealand Standard AS/NZS 4326 (2008) provides further guidance on storage. Store away from incompatible materials described in Section 10.

**Incompatible materials**

Incompatible with reducing agents. Incompatible with combustible materials. Incompatible with strong acids and bases. Incompatible with copper, zinc, brass and bronze.

**Section 8: Exposure controls and personal protection****Control parameters****Exposure Limits**

No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for particulates and decomposition product(s):

Ammonia: 8hr TWA = 17 mg/m<sup>3</sup> (25 ppm), 15 min STEL = 24 mg/m<sup>3</sup> (35 ppm)

Nitric acid: 8hr TWA = 5.2 mg/m<sup>3</sup> (2 ppm), 15 min STEL = 10 mg/m<sup>3</sup> (4 ppm)

Nitrogen dioxide: 8hr TWA = 5.6 mg/m<sup>3</sup> (3 ppm), 15 min STEL = 9.4 mg/m<sup>3</sup> (5 ppm)

Nitrous oxide (Dinitrogen monoxide): 8hr TWA = 45 mg/m<sup>3</sup> (25 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Appropriate engineering controls****Engineering controls**

Ensure that eyewash stations and safety showers are close to the workstation location.

Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements. Apply technical measures to comply with occupational exposure limits.

**Individual protection measures, such as personal protective equipment**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.

NOTE: Chemical goggles and face shield are not required if wearing an air-supplied mask.



<b>Eye/face protection</b>	Tight sealing safety goggles. If splashes are likely to occur: Face protection shield.
<b>Skin and body protection</b>	Rubber boots. Chemical resistant apron. Splash apron or equivalent chemical impervious outer garment. Impervious clothing. Heat resistant overalls.
<b>Hand protection</b>	Elbow-length impervious gloves.
<b>Respiratory protection</b>	If determined by a risk assessment an inhalation risk exists, wear an air supplied respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
<b>Environmental exposure controls</b>	No information available.
<b>Thermal hazards</b>	Caution - material can be very hot.

## Section 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear Hot (130°C max)
<b>Color</b>	Colourless
<b>Odor</b>	Depending on pH, material can have irritating odour of ammonia (high pH) or nitric acid (low pH).
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	5-7	
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	Not applicable	
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	Not applicable	
<b>Lower flammability or explosive limits</b>	Not applicable	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	1.35	
<b>Water solubility</b>	Miscible in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

## Section 10: Stability and reactivity

### Reactivity

**Reactivity** Oxidizer.

### Chemical stability

**Stability** Ammonium nitrate is a powerful oxidising agent. When heated to decomposition (unconfined) it produces nitrous oxide, white ammonium nitrate fumes and water. When mixed with strong acids, and occasionally during blasting, it produces an irritating toxic brown gas, mostly of nitrogen dioxide. When molten may decompose violently due to shock or pressure.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** Oxidizing agent. Supports combustion of other materials and increases intensity of a fire. Will react with organic materials, and reducing agents. Reacts with nitrites, chlorides, chlorates, permanganates, metal powders. When mixed with strong acids, and occasionally during blasting, it produces an irritating toxic brown gas, mostly of nitrogen dioxide. When molten (such as in a fire situation) may decompose violently due to shock or pressure.

Contamination with chlorine bleaches, pool chlorine, hypochlorites may result in the formation of explosive nitrogen trichloride. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid****Conditions to avoid**

Incompatible materials. Avoid contact with combustible substances.

**Incompatible materials****Incompatible materials**

Incompatible with reducing agents. Incompatible with combustible materials. Incompatible with strong acids and bases. Incompatible with copper, zinc, brass and bronze.

**Hazardous decomposition products**

**Hazardous decomposition products** Nitrogen oxides. Ammonia. Nitric acid. Ammonium nitrate fumes.

**Section 11: Toxicological information****Information on likely routes of exposure****Product Information**

No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

**Inhalation**

Vapour and processing fumes may cause irritation to mucous membranes of the respiratory tract, headache and nausea. May cause shortness of breath, severe headaches and lung effects. Inhalation of hot vapours may result in thermal burns to the respiratory tract.

**Eye contact**

Causes serious eye irritation. Contact with the hot material can result in pain, thermal burns, and permanent injury.

**Skin contact**

May cause irritation. Nitrates can be absorbed through cut, burnt or broken skin. Contact with the hot material can result in pain, thermal burns, and permanent injury.

**Ingestion**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause a lowering of blood pressure (hypotension). Contact with hot material can cause thermal burns.

**Symptoms**

Contact with hot material can cause thermal burns. Irritation. May cause redness and



tearing of the eyes.

**Acute toxicity****Numerical measures of toxicity - Product Information**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium nitrate	= 2217 mg/kg ( Rat )	> 5000 mg/kg ( Rat )	> 88.8 mg/L ( Rat ) 4 h
Water	> 90 mL/kg ( Rat )	-	-

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation** No information available.**Serious eye damage/eye irritation** Causes serious eye irritation. Classification is based on mixture calculation methods based on component data.**Respiratory or skin sensitization** No information available.**Germ cell mutagenicity** No information available.**Carcinogenicity** No information available.**Reproductive toxicity** No information available.**STOT - single exposure** No information available.**STOT - repeated exposure** No information available.**Aspiration hazard** No information available.

**Chronic effects:** Following the ingestion of nitrates in humans and animals methaemoglobinaemia has occurred. NITRATES: Absorption of nitrates by ingestion, inhalation or through burnt or broken skin may cause dilation of the blood vessels by direct smooth muscle relaxation with a subsequent lowering of blood pressure and may also cause breathing difficulties, blueness of the skin (cyanosis) and methaemoglobinaemia. In humans and animals methaemoglobinaemia has occurred under untreated circumstances following the ingestion of nitrates.

**Section 12: Ecological information****Ecotoxicity**

**Aquatic ecotoxicity** Keep out of waterways.  
Ammonium nitrate is a plant nutrient. Large scale contamination may kill vegetation and cause poisoning in livestock and poultry.

Ammonium nitrate was evaluated at 5, 10, 25 and 50 mg (NH<sub>4</sub><sup>+</sup>)/L. The fertility of *Daphnia magna* was decreased at 50 mg/L. Post embryonic growth of crustacea was impaired at 10, 25 and 50 mg/L. Can stimulate weed and algal growth in static surface waters.

**Terrestrial ecotoxicity** There is no data for this product.

#### Persistence and degradability

**Persistence and degradability** No information available.

#### Bioaccumulative potential

**Bioaccumulation** Not likely to bioaccumulate.

Chemical name	Partition coefficient
Ammonium nitrate	-3.1

#### Mobility

**Mobility** No information available.

#### Other adverse effects

**Other adverse effects** No information available.

### Section 13: Disposal considerations

#### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Allow material to cool and solidify.

**Contaminated packaging** Empty containers must be tripled rinsed prior to disposal. Empty containers must be either rendered totally unusable, or if to be recycled for use, decontaminated by rinsing thoroughly with water. Rinsing water needs to be disposed of carefully.

See section 8 for more information

### Section 14: Transport information

**ADG** Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**UN number or ID number** 2426  
**Proper shipping name** HOT AMMONIUM NITRATE, LIQUID  
**Transport hazard class(es)** 5.1  
**Packing group** Not applicable  
**Hazchem code** 1Y

**IATA** TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in Passenger and Cargo Aircraft, and

Cargo Aircraft Only.

**IMDG**

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN number** 2426  
**UN proper shipping name** HOT AMMONIUM NITRATE, LIQUID  
**Transport hazard class(es)** 5.1  
**Packing group** Not applicable  
**IMDG EMS Fire** F-H  
**IMDG EMS Spill** S-Q  
**Marine pollutant** Not applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No information available

**Section 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).  
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

See section 8 for national exposure control parameters

**Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)**

No poisons schedule number allocated

**Poison Schedule Number** Not applicable**Australian Industrial Chemicals Introduction Scheme (AICIS)**

Present

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Ammonium nitrate - 6484-52-2	Present	-
Water - 7732-18-5	Present	-

**Illicit Drug Precursors/Reagents**

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemical name	Chemicals of Security Concern	Additional information
Ammonium nitrate - 6484-52-2	Present	-

**Major hazard (accident/incident planning) regulation**

Verify that license requirements are met

**International Inventories**

<b>AIIC</b>	All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.
<b>NZIoC</b>	All the constituents of this material are listed on the New Zealand Inventory of Chemicals.
<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.

**Legend:****AIIC** AIIC- Australian Inventory of Industrial Chemicals**NZIoC** - New Zealand Inventory of Chemicals**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**Section 16: Other information**

<b>Reason(s) For Issue:</b>	Revised Primary SDS Change to Packing Group
<b>Prepared By</b>	This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).
<b>Revision date:</b>	01-May-2024

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since The Supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Supplier representative or The Supplier at the contact details on page 1.**

**The Supplier's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.**

**End of Safety Data Sheet**