Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT IDENTIFIER	**ARM U 28% NBPT**
PRODUCT USE	Liquid nitrogen stabiliser for urea fertilisers
MANFACTURERS NAME	Active Agriscience Australia Pty Ltd.
DATE	June 12 2025
EMERGENCY TELEPHONE	+1800 039 008
PREPARED BY	Active Agriscience Australia Pty Ltd.
USE RESTRICTIONS	For professional use only. Use only as labeled.
DISTRIBUTORS NAME	
STREET ADDRESS	
CITY	
POSTAL CODE	
COUNTRY	
EMERGENCY TELEPHONE	

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

WHS Regulations	**Eye Damage / Irritation:** Category 1 **Skin Corrosion / Irritation:** Category 2 **Specific Target Organ Toxicity (STOT); Single exposure:** Category 3 (respiratory irritation) **Specific Target Organ Toxicity (STOT); Single exposure:** Category 2 (kidneys) **Reproductive toxicity:** Category 1B
 **DANGER**	**HAZARD STATEMENTS:** CAUSES SERIOUS EYE DAMAGE. CAUSES SKIN IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. MAY DAMAGE FERTILITY OR THE UNBORN CHILD. **PRECAUTIONARY STATEMENTS**: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear chemical resistant gloves, coveralls, goggles and face protection. Change gloves frequently. Wear air supplied respirator where airborne concentrations exceed recommended exposure limits or are unknown. Do not eat, drink or smoke when using this product. Wash up thoroughly before eating, drinking, smoking and leaving work. Keep livestock off treated areas until after 14 days or 2.5 cm of rainfall has accumulated. **FIRST AID:** ***IF SWALLOWED:*** Rinse mouth. Do NOT induce vomiting. **Immediately call a POISON CENTRE / doctor.** ***IF ON SKIN:*** Immediately take off all contaminated clothing. Rinse skin with water (or shower). Wash contaminated clothing before reuse. **Seek immediate medical attention.** ***IF INHALED:*** Remove person to fresh air and keep comfortable for breathing. **Immediately call a POISON CENTRE / doctor.** ***IF IN EYES:*** Immediately flush eyes with a gentle stream of water for 15 minutes while holding the upper and lower eyelids open. Remove contact lenses, if present and easy to do. **Seek immediate medical attention.** **STORAGE:** KEEP OUT OF REACH OF CHILDREN. Store locked up in a cool, dry, well-ventilated area away from food or feed storage. DO NOT FREEZE. **DISPOSAL:** Dispose of this product and its container in accordance with Federal, Provincial, and Local regulations.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS#	CONCENTRATION
1-Methyl-2-pyrrolidone	872-50-4	5-10%
Ethylene glycol	107-21-1	20-30%
Propylene glycol (propane-1,2-diol)	57-55-6	20-30%
Butyl phosphorothioic triamide	94317-64-3	26%
Additive(s)	N/A	Remainder %

SECTION 4 – FIRST AID MEASURES

EYE CONTACT	Immediately flush eyes with a gentle stream of water for 15 minutes while holding the upper and lower eyelids open. Remove contact lenses, if present and easy to do. **Seek immediate medical attention.**
SKIN CONTACT	Immediately take off all contaminated clothing. Rinse skin with water (or shower). Wash contaminated clothing before reuse. **Seek immediate medical attention.**
INHALATION	Remove person to fresh air and keep comfortable for breathing. **Immediately call a POISON CENTRE / doctor.**
INGESTION	Rinse mouth. Do NOT induce vomiting. **Immediately call a POISON CENTRE/doctor.**
Most Important Symptoms, both acute & delayed	Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. May damage fertility or the unborn child.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 5 – FIRE FIGHTING MEASURES	
FLAMMABLE	Product will not burn or support combustion.
MEANS OF EXTINCTION	Use extinguishing methods appropriate for the surrounding fire.
FLASHPOINT & METHOD	NAV
UPPER FLAMMABLE LIMIT	NAV
LOWER FLAMMABILITY LIMIT	NAV
AUTO IGNITION TEMPERATURE	NAV
SENSITIVITY TO IMPACT	NAV
SENSITIVITY TO STATIC DISCHARGE	NAV
HAZARDOUS COMBUSTION PRODUCTS	Toxic irritating and/or corrosive gases may be released during a fire: carbon oxides, nitrogen oxides, sulphur oxides.

SECTION 6 – ACCIDENTAL RELEASE MEASURES	
LEAK & SPILL PROCEDURES	Wear personal protective equipment outlined in SECTION 8. Ventilate area of spill. Avoid breathing mists. Contain spill then adsorb with inert material and place into suitable clean containers for later disposal. Do not release into drains or the environment.

SECTION 7 – HANDLING AND STORAGE	
HANDLING	Do not handle until all safety precautions have been read and understood. Do not breathe mist/spray. Do not get in eyes, or skin. Wear personal protective equipment outlined in SECTION 8. Wash hands and other exposed areas before eating, drinking, smoking and when leaving work.
STORAGE	KEEP OUT OF REACH OF CHILDREN. Store locked up in a cool, dry, well-ventilated area away from food or feed storage. DO NOT FREEZE.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE STANDARDS

INGREDIENT	*REFERENCE*
1-Methyl-2-pyrrolidone	**SWA [AUS]** TWA: 25 ppm, 103 mg/m³, STEL: 75 ppm, 309 mg/m³
1-Methyl-2-pyrrolidone	**SWA [Proposed]** TWA: 20 ppm, 80 mg/m³
Ethylene glycol (particulate)	**SWA [AUS]** TWA: -- ppm, 10 mg/m³
Ethylene glycol (particulate)	**SWA [Proposed]** STEL: -- ppm, 10 mg/m³
Ethylene glycol (vapour)	**SWA [AUS]** TWA: 20 ppm, 52 mg/m³, STEL: 40 ppm, 104 mg/m³
Propane-1,2-diol (particulates only)	**SWA [AUS]** TWA: -- ppm, 10 mg/m³
Propane-1,2-diol (total vapour & particulates)	**SWA [AUS]** TWA: 150 ppm, 474 mg/m³
Propane-1,2-diol (total vapour & particulates)	**SWA [Proposed]** TWA: -- ppm, 50 mg/m³

BIOLOGICAL LIMITS

INGREDIENT	*REFERENCE*
1-Methyl-2-pyrrolidone	**Determinant:** 5-hydroxy-N-methyl-2-pyrrolidone in urine **Sampling Time:** End of shift **BEI:** 100 mg/L
ENGINEERING CONTROLS	Avoid inhalation. Use in well-ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

PERSONAL PROTECTIVE EQUIPMENT

Skin	Wear chemical resistant gloves, coveralls and face protection when handling or applying this product. Change gloves frequently.
Eyes	Wear chemical resistant goggles when handling or applying this product.
Respirator	Wear air supplied respirator where airborne concentrations exceed recommended exposure limits or are unknown.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL STATE	Liquid
COLOUR	Blue
BOILING POINT	NAV
EVAPORATION RATE	NAV
ODOUR	Slight odour
SOLUBILITY IN WATER	Soluble
APPEARANCE	Blue liquid
VISCOSITY	42 cPs at 10°C
FREEZING POINT	NAV
SPECIFIC GRAVITY	1.09-1.15kg/1L
pH	5.9-6.5
ODOUR THRESHHOLD	NAV

SECTION 10 – STABILITY AND REACTIVITY	
CHEMICAL STABILITY	Stable under normal conditions of use and storage.
INCOMPATIBLE WITH OTHER SUBSTANCES	Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), reducing agents (e.g. sulphites), heat and ignition sources.
HAZARDOUS DECOMPOSING PRODUCTS	May evolve toxic gases (carbon/ nitrogen/ sulphur oxides, hydrocarbons) when heated to decomposition.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 11 – TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	Animal evidence indicates that 1-methyl-pyrrolidone exhibits low acute oral, dermal or inhalation toxicity. **1-Methyl-2-pyrrolidone** • Oral LD50: 4,150 mg/kg (rat) • Dermal LD50: > 5,000 mg/kg (rat) • Inhalation LC50: > 5.1 mg/l/4hrs (rat) **Ethylene Glycol (1,2-Ethanediol)** • Oral LD50: 1670 mg/kg (cat); > 2000 mg/kg (rat) • Dermal LD50: 9530 mg/kg (rabbit) • Inhalation LC50: 10876 mg/kg (rat) **Propylene Glycol (Propane-1,2-diol)** • Oral LD50: > 2080 mg/kg (quail) • Dermal LD50: 20800 mg/kg (rabbit)
CHRONIC TOXICITY	Based on the available information, product does not meet criteria for chronic toxicity.
EYE / SKIN IRRITATION	Causes serious eye damage and skin irritation.
SENSITIZATION	Not available.
CARCINOGENICITY	No ingredients present at or above 0.1% are classified as carcinogenic under the GHS as adopted in the Australian WHS Regulations.
REPRODUCTIVE TOXICITY	1-Methyl-2-pyrrolidone is classified as damaging the unborn child. Developmental effects, including post implantation loss, foetal malformations and pup mortality, have been observed in rats, rabbits and mice following oral and/or dermal exposure (AICIS). N-(n-Butyl) thiophosphoric triamide is suspected of damaging fertility.
MUTAGENICITY	Based on the available in vitro and in vivo genotoxicity studies the chemical is not considered to be genotoxic.
STOT – SINGLE EXPOSURE	Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties.
STOT – REPEATED EXPOSURE	Not classified as causing organ damage from repeated exposure.
ASPIRATION	Not classified as causing aspiration.
Possible delayed effects	N-methyl-2-pyrrolidone: effects may be delayed. Animal studies show adverse effects to liver and kidneys.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 12 – ECOLOGICAL INFORMATION

ECO TOXICITY	Aquatic Toxicity
N-(n-butyl)-thiophosphoric triamide	
Acute Toxicity	Algea
	Crustacea
	Fish
Test	EC_{50}
	EC_{50}
	LC_{50}
	LC_{50}
Species	Selenastrum capricornutum
	Daphnia magna
	Daphnia
	Lepomis macrochirus
Test Results	280 mg/l, 96 hours
	290 mg/l, 48 hours
	350 mg/l, 48 hours
	1140 mg/l, 96 hours
N-methyl-2-pyrrolidone (CAS 872-50-4)	
Acute Toxicity	Crustacea
	Algae
	Crustacea
	Fish
Test	LC_{50}
	EC_{50}
	EC_{50}
	LC_{50}
Species	Palaemonetes vulgaris
	Scenedesmus subspicatus
	Daphnia magna
	Oncorhynchus mykiss
Test Results	1107 mg/l, 96 hours
	> 500 mg/l, 72 hours
	> 1000 mg/l, 24 hours
	> 500 mg/l, 96 hours
Chronic Toxicity	Crustacea
Test	LC_{50}
Species	Daphnia magna
Test Results	25 mg/l, 21 days

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

Propylene Glycol (CAS 57-55-6)	
Acute Toxicity	Crustacea
Test	LC_{50}
Species	Ceriodaphnia
Test Results	18340 mg/l, 48 hours
Ethylene Glycol (CAS 107-21-1)	
Acute Toxicity	Fish
	Crustacea
	Algae
Test	LC_{50}
	EC_{50}
	ErC_{50}
Species	fish
	daphnia magna
	algae
Test Results	>72.860 mg/l, 96 hours
	>100 mg/l, 48 hours
	<13.000 mg/l, 96 hours
Chronic Toxicity	
Test	LC_{50}
	EC_{50}
	NOEC
Species	aquatic invertebrates
	aquatic invertebrates
	aquatic invertebrates
Test Results	>1.500 mg/l, 28 days
	>15.000 mg/l, 21 days
	≥1.000 mg/l, 23 days
Persistence and Degradability	This product is not readily biodegradable.
Bioaccumulation potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
N-methyl-2-pyrrolidone (CAS 872-50-4)	-0.54
Propylene Glycol (CAS 57-55-6)	-0.92
Ethylene Glycol (CAS 107-21-1)	-1.36
Mobility in soil	Product is water soluble and may move through soil.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 13 – DISPOSAL CONSIDERATIONS	
WASTE DISPOSAL	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
LEGISTLATION	Dispose of in accordance with relevant local legislation.

SECTION 14 – TRANSPORT INFORMATION	
SHIPPING	Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA

SECTION 15 – REGULATORY INFORMATION	
POISON SCHEDULE	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
CLASSIFICATIONS	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
INVENTORY LISTINGS	**AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)** All components are listed on AIIC or are exempt. **CANADA: DSL (Canadian Domestic Substances List)** All components are listed on the DSL or are exempt. **UNITED STATES: TSCA (US Toxic Substances Control Act)** All components are listed on the TSCA inventory or are exempt.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

SECTION 16 – OTHER INFORMATION

ADDITIONAL INFORMATION	**WORK PRACTICES - SOLVENTS:** Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion-proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures. **RESPIRATORS:** In general, the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn, ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air-powered or air-supplied respirators should be considered where prolonged or repeated use is necessary. **PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:** The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration, and the availability of engineering controls should be considered before final selection of personal protective equipment is made. **HEALTH EFFECTS FROM EXPOSURE:** It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used; and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Active Agriscience Australia Pty Ltd.
PO BOX 970, Canning Bridge Applecross, WA, 6153
0402 794 288; 0438 974 354
info.aus@activeagriscience.com

SAFETY DATA SHEET

ARM U 28% NBPT

ABBREVIATIONS	**ACGIH:** American Conference of Governmental Industrial Hygienists **CAS #:** Chemical Abstract Service number - used to uniquely identify chemical compounds **CNS:** Central Nervous System **EC No.:** EC No - European Community Number **EMS:** Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods) **GHS:** Globally Harmonized System **GTEPG:** Group Text Emergency Procedure Guide **IARC:** International Agency for Research on Cancer **LC50:** Lethal Concentration, 50% / Median Lethal Concentration **LD50:** Lethal Dose, 50% / Median Lethal Dose **mg/m³:** Milligrams per Cubic Metre **OEL:** Occupational Exposure Limit **pH:** Relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline) **Ppm:** Parts Per Million **STEL:** Short-Term Exposure Limit **STOT-RE:** Specific Target Organ Toxicity (Repeated Exposure) **STOT-SE:** Specific Target Organ Toxicity (Single Exposure) **SUSMP:** Standard for the Uniform Scheduling of Medicines and Poisons **SWA:** Safe Work Australia **TLV:** Threshold Limit Value **TWA:** Time Weighted Average