SAFETY DATA SHEET



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name THIO-N PLUS

Synonyms

1.2 Uses and uses advised againstUsesAGRICULTURAL APPLICATIONS • FERTILISER

1.3 Details of the supplier of the product

Supplier name	CAMPBELLS FERTILISERS AUSTRALASIA PTY LTD
Address	18 Raymond Rd, Laverton North, Victoria, 3026, AUSTRALIA
Telephone	(03) 9931 2211
Fax	(03) 9931 2201
Email	info@campbellsfert.com.au
Website	www.campbellsfert.com.au

1.4 Emergency telephone numbers

 Emergency
 (03) 9931 2211 (8.30am - 5pm Monday - Friday)

 Emergency
 0418 350 726 (At all other times)

 Poison
 Information
 13 11 26

 Centre

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

2.2 GHS Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
AMMONIUM THIOSULPHATE	7783-18-8	231-982-0	<30%
AMMONIUM SULPHATE	7783-20-2	231-984-1	<10%
AMMONIUM SULPHITE	10196-04-0	233-484-9	<10%
ADDITIVE(S)	-	-	Not Available
WATER	7732-18-5	231-791-2	Remainder
AMMONIUM NITRATE-UREA MIXTURE	-	-	Not Available

4.	FIRST	AID	MEASURES
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4.1 Description of first aid measures

- **Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
- Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
- **Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
- Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once).

First aid facilities Eye wash facilities should be available.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases if strongly heated. May evolve ammonia, ammonium sulphate and sulphur when heated to decomposition.

5.3 Advice for firefighters

No fire or explosion hazard exists.

5.4 Hazchem code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances.

7.3 Specific end uses

No information provided.



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

No exposure standards have been entered for this product.

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas.

PPE

Eye / FaceWear splash-proof goggles.HandsWear PVC or rubber gloves.BodyWhen using large quantities or where heavy contamination is likely, wear coveralls.RespiratoryNot required under normal conditions of use.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	LIQUID
Odour	CHARACTERISTIC ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
рН	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Specific gravity	NOT AVAILABLE
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.



10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with combustible materials, and reducing agents (e.g. sulphites).

10.6 Hazardous decomposition products

May evolve ammonia, ammonium sulphate and sulphur when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea.

Information available for the ingredients:

Ingredient		Oral LD50	Dermal LD50	Inhalation LC50
AMMONIUM THIOSU	AMMONIUM THIOSULPHATE			
AMMONIUM SULPHA	ATE	2840 mg/kg (rat)	> 2000 mg/kg (rat)	
Skin	Contact may result in irritation, redness, rash and dermatitis.			
Eye	Contact may result in irritation, lacrimation, pain and redness.			
Sensitisation	Not classified as causing skin or respiratory sensitisation.			
Mutagenicity	Not classified as a mutagen.			
Carcinogenicity	Not classified as a carcinogen.			
Reproductive	Not classified as a reproductive toxin.			
STOT - single exposure	Over exposure may result in irritation of the nose and throat, with coughing.			
STOT - repeated exposure	Not classified as causing organ damage from repeated exposure.			
Aspiration	Not classified as causing asp	piration.		

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

Plant nutrients may be beneficial to plants at low levels, however high levels may cause reduced growth or burns in sensitive species. Excess may be washed through soil to waterways. Nutrients released to waterways may cause algal blooms, with potential for toxic effects on aquatic organisms.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal	Dispose of to an approved landfill or waste processing site. Contact the manufacturer/supplier for additional information (if required).
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

ChemAlert.

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None allocated.	None allocated.	None allocated.
14.2 Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3 Transport hazard class	None allocated.	None allocated.	None allocated.
14.4 Packing Group	None allocated.	None allocated.	None allocated.

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

Hazchem code None allocated.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Inventory listings AUSTRALIA: AllC (Australian Inventory of Industrial Chemicals) All components are listed on AllC, 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. All components are listed on the TSCA inventory.

16. OTHER INFORMATION

Additional information

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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.



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		
	LING	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		
	OĔL	Occupational Exposure Limit		
	pН	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly		
		alkaline).		
	ppm	Parts Per Million		
	STEL	Short-Term Exposure Limit		
		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		
Report status	This document has been compiled by RMT on behalf of the manufacturer, importer or product and serves as their Safety Data Sheet ('SDS').			
	It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier 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, importer or supplier.			
	not provide ar no liability for	as taken all due care to include accurate and up-to-date information in this SDS, it does by warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts any loss, injury or damage (including consequential loss) which may be suffered or by person as a consequence of their reliance on the information contained in this SDS.		
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		[End of CDC]		

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