1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name	**PASTURE PLUS MAX**
Synonym(s)	RLF PASTURE PLUS MAX

1.2 Uses and uses advised against

Use(s)	AGRICULTURAL APPLICATIONS • FERTILISER • LIQUID FERTILISER

1.3 Details of the supplier of the poduct

Supplier name	**RURAL LIQUID FERTILISERS PTY LTD**
Address	1/61 Dowd Street, Welshpool, WA, 6106, AUSTRALIA
Telephone	(08) 9334 8700; 1800 753 000
Fax	(08) 9334 8711
Email	info@rlf.com.au
Website	http://www.ruralliquidfertilisers.com

1.4 Emergency telephone number(s)

Emergency	Poisons Information Centre: 13 11 26

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

2.2 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
PHOSPHORIC ACID	7664-38-2	231-633-2	<5%
BORIC ACID	10043-35-3	233-139-2	<1%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

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 and safety shower 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 phosphorus oxides 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 use(s)**	No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m³	ppm	mg/m³
Phosphoric acid	SWA (AUS)	--	1	--	3

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 / Face Wear splash-proof goggles.

Hands Wear PVC or rubber gloves.

Body When using large quantities or where heavy contamination is likely, wear coveralls.

Respiratory Not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	TRANSLUCENT BLUE-GREEN LIQUID
Odour	CHARACTERISTIC PHOSPHATE ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	2.8 to 3.2 (1% aqueous)
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

9.2 Other Information

Denstity 1.494 to 1.594 g/cm³ @ 20°C

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**	Polymerisation 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 phosphorus oxides when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Information available for the ingredient(s):

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
PHOSPHORIC ACID	1530 mg/kg (rat)	2740 mg/kg (rabbit)	--
BORIC ACID	2660 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	Contains boric acid which is classified as damaging fertility or the unborn child. However, the concentration is below that to require classification.
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 aspiration.

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

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 No information provided

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 andLabelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard codes None allocated.

Risk phrases None allocated.

Safety phrases

S23 Do not breathe gas/fumes/vapour/spray (where applicable).

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37 Wear suitable protective clothing and gloves.

S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Inventory listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**

All components are listed on AICS, or are exempt.

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 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 (high 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

Disclaimer

This document has been prepared by Rural Liquid Fertilisers (RLF), 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.

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End of SDS