

## 1. Identification

<b>Product Name</b>	<b>Plasma Fusion Liquid Fertiliser</b>
<b>Other Names</b>	Liquid fertiliser, Fluid fertiliser, Solution fertiliser
<b>Uses</b>	Liquid fertiliser
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	No Data Available
<b>Chemical Name</b>	No Data Available
<b>Product Description</b>	No Data Available

<b>Contact Information</b>	<b>Australia</b>	<b>Location</b>	<b>Telephone</b>	<b>Ask For</b>
	Rural Liquid Fertilisers Pty Ltd	61 Dowd Street Welshpool WA 6106	+61 1800 753 000	Technical Officer

## 2. Hazard Identification

<b>ADG Code</b>	Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code). Goods are IATA Non-Dangerous.
<b>Hazardous Substance</b>	Plasma Fusion Liquid Fertiliser is not classified as hazardous according to Safe Work Australia criteria.

## 3. Composition/Information on Ingredients

### GUARANTEED QUANTITY OF ELEMENT

Nitrogen (N)	91.47 g/l	9.1 w/v %	6.3 w/w %
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	249.34 g/l	24.9 w/v %	17.1 w/w %
Potassium (K <sub>2</sub> O)	30.86 g/l	3.1 w/v %	2.1 w/w %

### SECONDARY ELEMENTS OR TRACE ELEMENTS

Sulphur (S)	31.32 g/l	3.13 w/v %	2.1 w/w %
Magnesium (Mg)	16.42 g/l	1.64 w/v %	1.12 w/w %
Iron (Fe)	2.37 g/l	0.24 w/v %	0.16 w/w %
Zinc (Zn)	41.22 g/l	4.12 w/v %	2.82 w/w %
Copper (Cu)	2.6 g/l	0.26 w/v %	0.18 w/w %
Manganese (Mn)	10.61 g/l	1.06 w/v %	0.73 w/w %
Boron (B)	5.8 g/l	0.580 w/v %	0.40 w/w %
Molybdenum (Mo)	0.33 g/l	0.033 w/v %	0.02 w/w %
Cobalt (Co)	0.08 g/l	0.008 w/v %	0.01 w/w %

## 4. First Aid Measures

*Description of necessary measures according to routes of exposure:*

<b>Swallowed</b>	If person is conscious, rinse mouth thoroughly with water immediately and give water or milk to drink. DO NOT induce vomiting. Seek medical assistance, if more than a small quantity has been swallowed, or if there is pain, or difficulty with swallowing.
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#### 4. First Aid Measures

<b>Eyes</b>	Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.
<b>Skin</b>	Gently flush affected areas with water. Seek medical attention if irritation develops. Remove all contaminated clothing and launder before re-use.
<b>Inhaled Handling</b>	If over exposure occurs remove affected person to a well ventilated area. Keep warm and at rest. In emergency situations, if breathing is difficult give oxygen. If the affected person suffers cardiac arrest commence cardio-pulmonary resuscitation immediately. Seek urgent medical attention.
<b>Advice to Doctor</b>	This product contains nitrates, which may be reduced to nitrites by intestinal bacteria. Nitrites may affect the blood (methaemoglobinaemia) and blood vessels (vasodilating and a fall in blood pressure). Effects peak within 30 minutes. Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methaemoglobin. Institute cardiac monitoring, especially in patients with coronary, artery, or pulmonary disease.

#### 5. Fire Fighting Measures

<b>Flammability Conditions</b>	Non flammable and does not support combustion.
<b>Extinguishing Media</b>	Extinguish fires with a large amount of water.
<b>Personal Protective Equipment</b>	No Data Available
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

#### 6. Accidental Release Measures

<b>Containment and Clean Up</b>	Any spillage should be contained promptly with sand, earth or vermiculite. Recover contained product and recycle. Absorb remaining product in sand, earth or vermiculite.  Wash down area and prevent run-off into drains, sewers, or waterways.
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#### 7. Handling and Storage

<b>Handling</b>	Keep away from copper, zinc, or their alloys, aluminum, or its alloys, mild steel, or concrete when transporting.
<b>Storage</b>	Store in a dedicated clean tank. Avoid contamination with any chemical. Avoid evaporation of water from the liquid fertiliser. Store away from incompatible materials, which include strong acids, hypochlorites, bleach, pool chlorine, or chlorine based cleaning products.

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### 8. Exposure Controls / Protection

<b>Exposure Limits</b>	No exposure standards allocated.
<b>Personal Protective Equipment</b>	Wear rubber or PVC gloves to prevent skin contact. Where mist is a problem use a P2 type canister Respirator. Wear PVC jacket and pants to prevent contact. Wear chemical safety glasses to prevent eye contact.
<b>Engineering Controls</b>	Use in well ventilated areas. Avoid high mist concentration.

### 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Liquid
<b>Odour</b>	Slight Pungent Odour
<b>Colour</b>	Greenish/Brown
<b>pH of 5% solution</b>	Acidic
<b>Vapour Pressure</b>	Does not exert significant vapour pressure.
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling/Melting Point</b>	N/A
<b>Freezing Point</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Solubility</b>	Miscible in all proportions with water.
<b>Specific Gravity</b>	Extremely High
<b>Volatile Percent</b>	No Data Available
<b>Flammability</b>	Not Flammable
<b>Flash Point</b>	Not relevant, does not give off flammable vapours.
<b>Auto Ignition Temp</b>	No Data Available

### 10. Stability and Reactivity

<b>Reactivity</b>	Plasma Fusion Liquid Fertiliser is not compatible with copper, zinc, or their alloys (i.e. bronze, brass, galvanised metals, etc.), aluminum, mild steel and concrete. Do not use the above materials of construction in handling systems, or storage containers for Plasma Fusion Liquid Fertiliser.
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### 11. Toxicological Information

<b>General Information</b>	Plasma Fusion Liquid Fertiliser has low toxicity. Use safe work practices to avoid eye or skin contact and mist inhalation. Prolonged or repeated exposure may cause drying of the skin with cracking and irritation that may lead to dermatitis.
<b>Target Organs</b>	Respiratory system, eyes and skin. Routes of Entry Ingestion or Inhalation.
<b>Eye Irritant</b>	May cause irritation, redness and pain following contact.

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### 11. Toxicological Information

<b>Ingestion</b>	Presents moderate toxicity, unless large amounts are ingested. Large amounts give rise to gastro-intestinal irritation, with symptoms such as nausea, vomiting and diarrhoea. Large amounts may also cause dilation of blood vessels by direct smooth muscle relaxation and methaemoglobinaemia (excessive conversion of haemoglobin to methaemoglobin, which is incapable of binding and carrying oxygen - methaemoglobin is formed when iron in the haem molecule is oxidised from the ferrous to the ferric state). Symptoms include dizziness, abdominal pain, vomiting, bloody diarrhoea, weakness convulsions and collapse.
<b>Inhalation</b>	High mist concentration of air-borne material may cause irritation to the nose and upper respiratory tract. Symptoms may include coughing and sore throat. Prolonged exposure may be harmful.
<b>Skin Irritant</b>	Prolonged contact may cause some irritation, including redness and itching. No harmful effects from skin contact have been reported.

### 12. Ecological Information

<b>Environment</b>	It is not anticipated to cause any adverse effects to plants or animals.
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### 13. Disposal Considerations

<b>Disposal Methods And Containers</b>	Dispose of on a farm, or authorised waste facility in accordance with statutory requirements. Contact the manufacturer if additional information is required.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

### 14. Transport Information

<b>ADG Code</b>	Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code). Goods are IATA Non-Dangerous.
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### 15. Regulatory Information

<b>ERMA Approval Code</b>	N/A
<b>HSNO Hazard Classification</b>	N/A
<b>NZ Toxic Substance</b>	N/A
<b>AICS Name</b>	N/A
<b>EPG</b>	N/A
<b>Poisons Schedule</b>	N/A

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## 16. Other Information

### Key/Legend

**NOHSC** National Occupational Health and Safety Commission

**SUSDP** Standard for the Uniform Scheduling of Drugs and Poisons

**ACGIH** American Conference of Government Industrial Hygienists

**ES-TWA** Exposure Standard – Time weighted average

**ES-STEL** Exposure Standard – Short term exposure level

**ES-Peak** Exposure Standard – Peak level

**LD Lo** The lowest dose in an animal study in which lethality occurred

**LD50** Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation

**TD Lo** The lowest dose of a substance known to have produced signs of toxicity

**TC Lo** Lowest published toxic concentration

**LC Lo** Lowest published lethal concentration

**LC 50** Lethal concentration that kills 50% of an animal population within a specified time

**t/m<sup>3</sup>** Tonnes per cubic metre

**mg/m<sup>3</sup>** Milligrams per cubic metre

**mg/kg** Milligrams per kilogram

**g/l** Grams per litre

**w/v%** weight per volume percentage

**w/w%** weight per weight percentage

**SG** Specific Gravity

**pH** relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

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