



# Spraygro Liquid Fertilisers

ABN 47 007 974 496

## Safety Data Sheet

Globally Harmonised System (GHS)

Compilation date 24/08/2016

Revision date 3/03/2017

Version # 2

# Firmrite Trace Plus

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product Identifier

|               |                            |
|---------------|----------------------------|
| Product Name: | <b>Firmrite Trace Plus</b> |
| CAS Number:   | Not applicable, mixture    |
| Product Code: | Firmrite Trace Plus        |
| Formula       | Not applicable, mixture    |
| Synonyms      | Not available              |

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: **Fertiliser**

#### 1.3 Details of the supplier of the safety data sheet

|               |   |
|---------------|---|
| Company Name: | Foliar Fertilizers PTY LTD                      |
| Address:      | 76 Grand Trunkway, Gillman, SA, 5013, AUSTRALIA |
| Telephone:    | +61 8 8447 7266                                 |

#### 1.4 Emergency number

|                     |                                       |
|---------------------|---------------------------------------|
| Emergency Contacts: | 0438 897 977 - Product Chemist        |
|                     | 0407 606 409 - National Sales Manager |

### SECTION 2: Hazards Identification

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

#### Classification of the substance or mixture:

Eye Irritation, category 2

SIGNAL WORD: **WARNING**



#### Hazard Statement(s):

H319: Causes serious eye irritation

Poisons Schedule: **None Allocated**

## Precautionary Statement(s):

### Prevention:

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P337+313: If eye irritation persists get medical advice/attention.

### Storage:

### Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

## SECTION 3: Composition/Information on Ingredients

### 3.1 Components

| Components                       | CAS Number    | Proportion | Material Hazard Codes |
|----------------------------------|---------------|------------|-----------------------|
| water                            |               | 30 to 60%  |                       |
| calcium nitrate                  | 13477-34-4    | 10 to 30%  | H272,H319             |
| magnesium nitrate                | 10377-60-3    | 10 to 30%  | H272,H319             |
| borate/organic acid complex      | none assigned | 10 to 30%  |                       |
| manganese nitrate                | 13446-18-9    | 1 to 10%   | H272,H315,H319        |
| molybdate, organic acid complex  | none assigned | 1 to 10%   |                       |
| copper/organic acid chelate      | none assigned | 1 to 10%   | H302,H319             |
| other ingredients, non-hazardous | none assigned | < 1%       |                       |

## SECTION 4: First Aid Measures

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126)

### **Inhalation:**

If aerosols are inhaled:

- Remove from contaminated area.
- Other measures are generally unnecessary.

### **Skin Contact:**

If skin or hair contact occurs:

- Flush skin and hair with running water.
- Seek medical attention if irritation is evident.

### **Eye Contact:**

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Contact a Poisons information centre or a doctor and continue flushing until advised to stop.
- Transport to hospital or doctor.
- Removal of contact lenses if worn should be undertaken by skilled personnel.

### **Ingestion:**

If ingestion occurs:

- For advice, contact a Poisons Information Centre, or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If vomiting occurs lean patient forward or place on left side to maintain open airway and prevent aspiration.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness. i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.
- Observe the patient carefully.

#### **Signs and Symptoms of Exposure:**

Chronic symptoms from overexposure of nitrates may result in methemoglobinemia.

Methemoglobinemia decreases the blood's ability to carry oxygen and results in symptoms such as dizziness, drowsiness, headache, shortness of breath, blue skin and lips, rapid heart rate, unconsciousness, and possibly death.

Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelisation, kidney defects and copper deposition in the cornea as exemplified by humans with Wilson's disease.

#### **Note to Physician:**

Nitrate poisoning: Arterial blood with elevated methaemoglobin levels has a characteristic chocolate-brown colour as compared to normal bright red oxygen-containing arterial blood. If methemoglobinemia is suspected, an arterial blood gas and co-oximetry panel should be obtained.

For copper poisoning, CaNa<sub>2</sub>EDTA has been proposed.

### **SECTION 5: Fire Fighting Measures**

#### **Extinguishing media**

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

#### **Special Hazards arising from the substrate or mixture**

- Avoid contamination with reducing agents, i.e. metal hydrides, phosphine's, sulfites which may liberate flammable gases.

#### **Advice for firefighters**

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

#### **Fire/Explosion Hazard:**

- Non-Combustible
- Decomposition products may produce the following toxic and/or corrosive fumes:
  - nitrogen oxides
  - carbon monoxide

Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

### **SECTION 6: Accidental Release Measures**

#### **Minor spills**

- Clean up spill immediately
- Wear personal protective equipment when cleaning up (see section 8 ).
- Clean up spill with sand or dirt or other inert material.
- Sweep/shovel for disposal. Comply with procedures laid down by local, state and federal governments.

#### **Major Spill**

- Clear area of personnel
- Contact Fire brigade or other hazard agency.

Prevent entry of spills to sewer and public water. Notify authorities if liquid enters sewers or public water.

### **SECTION 7: Handling and Storage**

#### **Precautions for Safe Handling**

- Avoid skin and eye contact.
- Wash hands and other exposed area with mild soap and water before eating, drinking or smoking.

#### **Conditions for safe storage**

- Store in a cool, dry, well ventilated place and out of direct sunlight.
- Do not store close to food or food cartons.
- Store away from incompatible materials described in Section 10.
- Keep containers closed when not in use.
- Check regularly for spills.
- Keep out of reach of children and pets.

### **SECTION 8: Exposure Controls/Personal Protection**

**Control Parameters:** No value assigned for this specific material or the constituents by the National Occupational Health and Safety Commissions.

#### **Appropriate Engineering Controls:**

For 1000L IBC containers, ensure a contingency plan is in place in the event of malfunction of the tap.

#### **Personal Protective Equipment**

##### **Eye and Face Protection**

- Wear goggles or face shield and take all steps to avoid splashing.
- It not recommended that contact lenses be used as they may concentrate irritants.

##### **Skin Protection**

- Wear chemically resistant LONG gloves.
- Wear rubber boots.
- Wear Apron or Overalls.
- Do not wear clothes or shoes that reveal bare skin.

##### **Respiratory protection**

- Not required under normal conditions.

### **SECTION 9: Physical and Chemical Properties**

Physical state:

Liquid

Colour:

blue

|                           |                             |
|---------------------------|-----------------------------|
| Odour:                    | minimal                     |
| pH (average):             | 2.8                         |
| Freezing point:           | < 0°C                       |
| Boiling point:            | ~ 105°C                     |
| Flash point:              | none                        |
| Evaporation rate:         | no data                     |
| Flammability:             | not flammable               |
| Vapour pressure:          | same as water               |
| Vapour density:           | same as water               |
| Specific Gravity:         | 1.46 (water = 1)            |
| Solubility:               | Completely soluble in water |
| Partition co-efficient    | no data                     |
| Auto-ignition temperature | no data                     |
| Decomposition temperature | no data                     |
| Viscosity                 | 1 to 100 mPa.s (water = 1)  |

## SECTION 10: Stability and Reactivity

### Reactivity and Associated Hazards

- Reacts with basic (alkaline) chemicals to form non-dangerous salt precipitates.
- May be exothermic in the presence of reducing agents.
- Reacts with phosphates to form non-dangerous salt precipitates.

### Stability

- Stable under normal conditions of use.
- Hazardous polymerisation will not occur.

### Conditions to avoid

See Section 7

### Incompatible materials

Incompatible with:

- Basic (alkaline) chemicals
- Reducing agents

### Hazardous Decomposition Products

- nitrogen oxides
- carbon monoxide

## SECTION 11: Toxicological Information

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

### Ingestion:

- Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain.

**Eye Contact:**

- An eye irritant

**Skin Contact:**

- While the components of this liquid are not considered an skin irritant (as classified by EC Directives), direct contact is not recommended as good hygiene practises should be used.

**Inhalation:**

- The components in this liquid are not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives) and the product is non-volatile.

**Chronic:**

- Chronic effects adverse to the health are not considered for the components in this liquid (as classified by EC Directives ). Exposure by all routes should be minimised as a precaution.

**Hazards for individual components\***

| Components                       | Acute Toxicity                        | Irritation              |
|----------------------------------|---------------------------------------|-------------------------|
| calcium nitrate                  | LD 50 for rat (oral) = 1000mg/kg      | eye irritant            |
| magnesium nitrate                | LD 50 for rat (oral) > 2000mg/Kg      | eye irritant            |
| borate/organic acid complex      | insufficient or no data               | insufficient or no data |
| manganese nitrate                | insufficient or no data               | irritant expected       |
| molybdate, organic acid complex  | insufficient or no data               | insufficient or no data |
| copper/organic acid chelate      | toxicity inferred from other compound | eye irritant inferred   |
| other ingredients, non-hazardous | insufficient or no data               | insufficient or no data |

\* additional toxicity data, including sensitisation, genetic toxicity, carcinogenicity can be found in the European Chemical Agency (ECHA) databases.

**SECTION 12: Ecological Information**

- DO NOT CONTAMINTE WATERWAYS

**Ecotoxicity for product: No available data**

**- Ecotoxicity for individual components\***

| Components                       | Acute Aquatic Toxicity           |
|----------------------------------|----------------------------------|
| calcium nitrate                  | LC50 (96 h) Poecilia = 1378 mg/L |
| magnesium nitrate                | insufficient or no data          |
| borate/organic acid complex      | insufficient or no data          |
| manganese nitrate                | LC50 (96h) Catla 61mg/L          |
| molybdate, organic acid complex  | insufficient or no data          |
| copper/organic acid chelate      | insufficient or no data          |
| other ingredients, non-hazardous | insufficient or no data          |

\* additional toxicity data, including long-term aquatic toxicity, aquatic invertebrates, algae/microorganisms can be found in the European Chemical Agency (ECHA) databases.

Persistence and degradability: No specific data on this product

Bioaccumulative Potential: No specific data on this product

Mobility in Soil: No specific data on this product

**SECTION 13: Disposal Considerations**

**Disposal methods:**

- Reuse or recycle clean containers where possible.
- Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor.

Normally suitable for disposal at approved land waste site.

**SECTION 14: Transport Considerations****Land Transport**

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

**Marine Transport (IMDG)**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS

**Air Transport (IATA)**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

**SECTION 15: Regulatory Information**

**The components of this product are listed on the Australian Inventory of Chemical Substances (AICS) or are made from other materials (proprietary) that are also listed on the AICS.**

**Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport**

**This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.**

**Poison Schedule:           None Assigned           (SUSMP)**

**SECTION 16: Other Information**

This SDS was prepared using:

- The Globally Harmonized System of Classification and Labelling of Chemicals GHS (3rd Edition) 2009.
- European Chemical Agency C&L Inventory
- Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia 2011)
- Guidance on the Classification of Hazardous Chemicals under the WHS Regulations (Safe Work Australia 2011)
- Australian Inventory of Chemical Substances (AICS)
- The Poisons Standard, SUSMP No 7 (2015)
- Australian Code for the Transport of Dangerous Goods by Road and Rail. Edition 7.3
- Fan, A. M., Steinberg, V. E., *Regulatory Toxicology and Pharmacology*, 23, 35-43 (1996)
- Franchitto, N., Mailly, P., Georges, B., Galinier, A., Telmon, N., Ducasse, J. L., Rouge, D., *Resuscitation*, **78**, p92 (2008)

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. Since Spraygro Liquid Fertilisers Pty Ltd 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.

Compilation date 24/08/2016  
Revision date 3/03/2017  
Version # 2  
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