Spraygro Liquid Fertilizers

ABN 47 007 974 496

Safety Data Sheet

Globally Harmonised System (GHS)

Firmrite Blast

Compilation date	3/12/2019
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Valid to	29/03/2031
Version #	4

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

1.1 Product Identifier

Product Name:	**Firmrite Blast**
CAS Number:	Not applicable, mixture
Product Code:	Firmrite Blast
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:	Spraygro Liquid Fertilizers
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: **S5 (SUSMP)**

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		10 to 30%	
calcium nitrate	13477-34-4	30 to 60%	H272,H319
urea	57-13-6	10 to 30%	
MEA polyborate	10377-81-8	1 to 10%	
borate/organic acid complex	none assigned	1 to 10%	
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.

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.

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

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

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.
• Do not transfer to container that does not have a breathable cap.

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 googles 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:	Amber
Odour:	none
pH (average):	5.0
Freezing point:	< 0^{o}C
Boiling point:	~ 105^{o}C
Flash point:	none
Evaporation rate:	no data
Flammability:	not flammable
Vapour pressure:	same as water
Vapour density:	same as water
Specific Gravity:	1.38 (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

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

Stability

- May undergo mild container expansion over time without a breathable cap.
- Hazardous polymerisation will not occur.

Conditions to avoid

See Section 7

Incompatible materials

Incompatible with:
- 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
urea	LD50 for rat (oral) = 11500mg/kg	not irritating
MEA polyborate	LD50 for rat (oral) > 2000mg/kg	not irritating
borate/organic acid complex	insufficient or no data	insufficient or no data
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
urea	LC50 (96h) Leuciscus >6810 mg/L
MEA polyborate	LC50 (96h) Cyprinus = 617mg/L
borate/organic acid complex	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: 5 (SUSMP)

SECTION 16: Other Information

This SDS was prepared using:

• The Globally Harmonized System of Classification and Labelling of Chemicals GHS (7th - 10th Edition) 2017-2023

• European Chemical Agency C&L Inventory

• Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia 2023)

• Classifying Hazarous Chemicals - National Guide (Safe Work Australia 2018)

• Australian Inventory of Chemical Substances (AICS)

• The Poisons Standard, SUSMP (2022)

• Australian Code for the Transport of Dangerous Goods by Road and Rail. Edition 7.9 (2024)

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 Fertilizers 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.

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