1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	**DYNAMO HIGH-K LIQUID FERTILISER**
Other Names	Liquid fertiliser, Fluid fertiliser, Solution fertiliser
Uses	Liquid fertiliser
Chemical Family	No Data Available
Chemical Formula	No Data Available
Chemical Name	No Data Available
Product Description	No Data Available

Contact Information

Australia	Location	Telephone	Ask For
Rural Liquid Fertilisers Pty Ltd	61 Dowd Street Welshpool WA 6106	+61 1800 753 000	Technical Officer

2. HAZARDS IDENTIFICATION

ADG Code

Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code). Goods are IATA Non-Dangerous.

Hazardous Substance

Dynamo High-K Liquid Fertiliser is not classified as hazardous according to Safe Work Australia criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINS ELEMENTS

Nitrogen (N)
Phosphorus (P_2O_5)
Potassium (K_2O)
Zinc (Zn)
Manganese (Mn)
Copper (Cu)

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure:

Swallowed

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.

Eyes

Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.

Skin	Gently flush affected areas with water. Seek medical attention if irritation develops. Remove all contaminated clothing and launder before re-use.
Inhaled Handling	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.
Advice to Doctor	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

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

6. ACCIDENTAL RELEASE MEASURES

Containment and Clean Up	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.

7. HANDLING AND STORAGE

Handling	Keep away from copper, zinc, or their alloys, aluminum, or its alloys, mild steel, or concrete when transporting.
Storage	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.

8. EXPOSURE CONTROLS / PROTECTION

Exposure Limits	No exposure standards allocated.
Personal Protective Equipment	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.
Engineering Controls	Use in well ventilated areas. Avoid high mist concentration.

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

Reactivity	**Dynamo High-K 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 **Dynamo High-K Liquid Fertiliser.**

11. TOXICOLOGICAL INFORMATION

General Information	**Dynamo High-K 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.
Target Organs	Respiratory system, eyes and skin. Routes of Entry Ingestion or Inhalation.
Eye Irritant	May cause irritation, redness and pain following contact.
Ingestion	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.
Inhalation	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.
Skin Irritant	Prolonged contact may cause some irritation, including redness and itching. No harmful effects from skin contact have been reported.

12. ECOLOGICAL INFORMATION

Environment	It is not anticipated to cause any adverse effects to plants or animals.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

ADG Code	Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code). Goods are IATA Non-Dangerous.

15. REGULATORY INFORMATION

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

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
LD 50	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/m³	Tonnes per cubic metre
mg/m³	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

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