



Spraygro Liquid Fertilizers

ABN 47 007 974 496

Safety Data Sheet

Globally Harmonised System (GHS)

Compilation date	31/08/2015
Last revision date	1/08/2022
Valid to	31/07/2027
Version #	4

Moly Mix

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

1.1 Product Identifier

Product Name:	Moly Mix
CAS Number:	Not applicable, mixture
Product Code:	Moly Mix
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:

Note: Hazard based on cobalt sulfate, mixture is based on chelated cobalt which may be less hazardous

Acute aquatic toxicity, category 2

Chronic aquatic toxicity, category 3

Carcinogenicity, category 1B

Germ cell mutagenicity, category 2

Reproductive toxicity, category 1B

Respiratory sensitizer, category 1

Skin sensitizer, category 1

SIGNAL WORD:

DANGER



**Hazard Statement(s):**

Note: Hazard based on cobalt sulfate, mixture is based on chelated cobalt which may be less hazardous

H317: May cause an allergic skin reaction

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H341: Suspected of causing genetic defects

H350: May cause cancer

H360: May damage fertility or the unborn child

H401: Toxic to aquatic life

H412: Harmful to aquatic life with long-lasting effects

Poisons Schedule: None Allocated

Precautionary Statement(s):Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing mists or aerosol sprays.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

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

Response:

P321: Specific treatment is urgent (see First aid on this label).

P363: Wash contaminated clothing before reuse.

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+313: IF exposed: Call a POISON CENTER or doctor/physician.

P333+313: If skin irritation or a rash occurs: Get medical advice/attention.

P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Storage:

P405: Store locked up.

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%	
molybdate, organic acid complex	none assigned	10 to 30%	
cobalt sulfate, chelated	none assigned	10 to 30%	H302,H317,H334 ,H341 ,H350 ,H360 ,H400,H410
other ingredients, non-hazardous	none assigned	1 to 10%	

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.
- Lay patient down, keep warm and rested.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-value mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

Skin Contact:

If skin or hair contact occurs:

- Immediately flush body and clothes with water (use a safety shower if available).
- Remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Contact Poisons Information Centre.
- Transport to hospital, or doctor.

Eye Contact:

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Seek medical attention if irritation is evident.

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:

Shortness of breath, Cough.

Cobalt is toxic, and in mammalian in vitro test systems cobalt ions are cytotoxic and induce apoptosis and at higher concentrations necrosis with inflammatory response.

Note to Physician:

For cobalt poisoning, diethylenetriaminepentaacetic acid, DTPA 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

- None known

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:
 - sulfur oxides
 - 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

- If aerosols are produced during use (i.e. fine spraying of product) ensure exposed users have equipped a respirator.

SECTION 9: Physical and Chemical Properties

Physical state:	Liquid
Colour:	Dark red/black
Odour:	ammonical
pH (average):	9.5
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:	1.18 (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 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:

- None specified

Hazardous Decomposition Products

- sulfur oxides
- 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.
- Swallowing may result in severe acute poisoning.
- Swallowing may lead to chronic health effects.

Eye Contact:

- While the components of this liquid are not considered an eye irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort.

Skin Contact:

- May cause skin allergy.

Inhalation:

- Product is not volatile, however, breathing in aerosols may produce respiratory irritation. May cause pulmonary edema at high concentrations.
- Product is not volatile, however, breathing in aerosols may cause chronic health effects.

Chronic:

- There is some concern that exposure of this product may result in genetic defects.
- There is some concern that exposure of this product may result in cancer.
- There is some concern that exposure of this product may result in damage fertility or an unborn child.

Hazards for individual components*

Components	Acute Toxicity	Irritation
molybdate, organic acid complex	insufficient or no data	insufficient or no data
cobalt sulfate, chelated	LD 50 for rat (oral) = 760mg/Kg (w/o chelate)	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 CONTAMINATE WATERWAYS
- Toxic to aquatic life
- Harmful to aquatic life with long-lasting effects

Ecotoxicity for product: No available data

- Ecotoxicity for individual components*

Components	Acute Aquatic Toxicity
molybdate, organic acid complex	insufficient or no data
cobalt sulfate, chelated	LC 50 (96h) Fathead =3.6 mg/l (w/o chelate)
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 (7th Edition) 2017.
- The Globally Harmonized System of Classification and Labelling of Chemicals GHS (9th Edition) 2021.
- European Chemical Agency C&L Inventory
- Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia 2016)
- 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 (2022)
- Australian Code for the Transport of Dangerous Goods by Road and Rail. Edition 7.7 (2020)
- Simonsen, L. O., Harbak, H., Bennekou, P., *Science of the Total Environment* , **432**, 210 (2012)
- Smith, S. W., *Journal of Medical Toxicity* , **9**, 355 (2013)

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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End of document