KALGAN 722 SL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **KALGAN 722 SL**
Other identifier: Propamocarb hydrochloride 722 SL
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: **Villa Crop Protection (Pty) Ltd.**
Co. Reg. No.: 1992/002474/07
PO Box 10413
Aston Manor, 1630, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
(Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)
Griffon Poison Information Centre +27 82 446 8946
(Client: Villa Crop Protection)
Poisoning Emergency telephone numbers:
Griffon Poison Information Centre +27 82 446 8946
Poisons Information Centre +27 861 555 777

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	**Hazard categories**	**H-statements**
Health		
Oral	Acute Toxicity 5	H303
Dermal	Skin Sensitization 1	H317

The most important adverse effects:
Physiochemical effects: None known
Human health effects:
May be harmful if swallowed.
May cause an allergic skin reaction.

Label elements:

Signal word: Warning

Hazard statements:
H303: May be harmful if swallowed.
H317: May cause an allergic skin reaction.

Precautionary statements:
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P317: IF SWALLOWED: Get medical help.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P333+P317: If skin irritation or rash occurs: Get medical help.
P501: Dispose of contents/container in accordance with local regulations.
Special labelling of certain mixtures:
None known.
Other hazards:
None known.
Toxicity:
Classification according to GHS: Category 5

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture
Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Propamocarb hydrochloride	25606-41-1	72.2	Skin Sensitization 1 (H317)
Tristytylphenol polyoxyethylene	99734-09-5	< 10%	Aquatic chronic 3 (H412)

4. FIRST AID MEASURES AND PRECAUTIONS

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure.
Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
Skin contact: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation or rash occurs.**
Eye contact: Flush eyes with clean water for at least 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. If irritation persists, seek medical advice.
Ingestion: Have victim rinse mouth thoroughly with water. Immediately dilute the swallowed product by giving large quantities of water. Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. **Seek medical advice.**

Anticipated acute effects: May be harmful if swallowed. May cause an allergic skin reaction.
Anticipated delayed effects: None known.
Most important symptoms/effects: Muscle spasms, lethargy and ataxia may occur.
Advice to physician: Treat symptomatically and supportively. No specific antidote known. If significant amounts have been ingested, i.e. greater than a mouthful, activated charcoal and sodium sulphate may be administered.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.
Specific hazards: Fire may produce irritating or poisonous vapours or gases including carbon monoxide, hydrogen chloride and oxides of nitrogen.
Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal.
Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin. Do not breathe in fumes. Ventilate area of spill or leak, especially confined areas.
Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.
Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water.
Methods and Materials for Containment: Contain spilled product by diking area with sand, sawdust or earth.
Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:
Precautions for safe handling: Avoid contact with skin. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.
General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used again.
Storage:
Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well- ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.
Incompatible substances and mixtures: Refer to product label.
Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Propamocarb hydrochloride	1.1 mg/m^3	TWA	OES

Engineering Controls:
It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified operator exposure limits (OES). Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply

with occupational safety, environmental, fire, and other applicable regulations.

Personal Protective Equipment

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator with cartridges/canisters approved for organic vapours.

Hand Protection: The use of chemically impervious gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles or face shield is recommended. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective impervious clothing; rubber boots, hat and equipment to prevent repeated or prolonged contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light Yellow to Clear liquid, Soluble concentrate.
Odour: Faint aromatic odour.
pH (1% aqueous dilution): 4 – 7.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: 100 °C.
Flash Point: > 100 °C.
Flammability: Not flammable.
Upper/lower explosion limits: Not available.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density: 1.07 – 1.09 g/mℓ @ 20 °C.
Solubility: Soluble in water.
n-octanol/water partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical Stability: The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 ^{O}C, preferably below 30 ^{O}C, and not for prolonged periods in direct sunlight.
Reactivity: None known.
Possibility of Hazardous Reactions: Will not occur.
Conditions to Avoid: Extreme heat and cold or exposure to direct sunlight.
Incompatible Materials: Store in the original container.
Hazardous Decomposition Products: Carbon monoxide, hydrogen chloride and oxides of nitrogen may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Calculated according to GHS
Oral LD_{50} > 2900 mg/kg (rat).
Dermal LD_{50} > 7400 mg/kg (rat).
Inhalation LC_{50} (4 h) > 5 mg/ℓ (rat).
Skin Irritation/Corrosion: Not a skin irritant.
Eye Damage/Irritation: Not an eye irritant.
Skin Sensitization: May cause sensitization and/or an allergic skin reaction.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
Specific target organ toxicity – single exposure: Not classified.
Specific target organ toxicity – repeated exposure: Not classified.
Aspiration hazard: Not classified.
Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is not expected to be harmful to aquatic organisms.

ECOTOXICITY DATA:
Based on Propamocarb hydrochloride TC

Fish:		
LC_{50} (96 h)	Bluegill sunfish	>92 mg/ℓ
	Rainbow trout	>99 mg/ℓ
	Carp	>100 mg/ℓ
Daphnia:		
LC_{50} (48 h)		>106 mg/ℓ
Algae:		
E_rC_{50} and E_bC_{50} (72 h)	*P. subcapitata*	>85 mg/ℓ
Birds:		
Acute oral LD_{50}	Bobwhite quail & Mallard ducks	>1842 mg/kg.
Dietary LC_{50} (5 d)	Bobwhite quail	>5000 mg/kg.
	Mallard ducks	>5500 mg/kg.
Bees:		
LD_{50} contact		>100 µg/bee.
LD_{50} oral		>84 µg/bee.

Worms:
LC_{50} (14 d) Earthworms >660 mg/kg soil.
ENVIRONMENTAL EFFECTS:
Based on information for the active ingredient.
Plants: Mainly unchanged in plants.
Persistence and degradability: Rapidly degraded in soil by microbial processes, following a brief lag phase, DT_{50} <30 d, DT_{90} <70 d. Stable in aqueous medium, but rapidly degraded by aquatic micro-organisms (up to 97% in 35 d). It is adsorbed onto sediment, but with limited desorption.
Bio-accumulative Potential: Does not bioaccumulate. Rapidly absorbed and almost totally excreted (>90% in 24 hours), mainly via urine. Mineralisation occurs via oxidation and hydrolytic decomposition.
Mobility in soil: Slightly mobile in soils. K_{oc} 719. Retained in the upper soil layer (4–20 cm) and little is found in leachate
Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.
Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN No.: Not regulated.
Not classed i.e. considered non-hazardous material according to UN Orange Book and international transport codes e.g. RID (rail) and IMDG (sea).
Special / Environmental Precautions: Wedge drums tightly to avoid movement.
Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:
OHSA 1993 Regulations for Hazardous Chemical Substances.
Relevant information regarding restrictions: None.
EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)
Other national regulations: None.
Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 50, 100, 150, 200, 250, 500 millilitres and 1, 5, 10, 20, 25, 50 and 100 litres plastic containers and labelled according to the South African regulations and guidelines.
Other hazard statements, abbreviations and explanations:
H412: Harmful to aquatic life with long lasting effects.
LD_{50} value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.
OEL/RL: Occupational exposure limit-recommended limit.
Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.
All information is given in good faith bit without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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For detailed information on revisions, contact the Registration holder.