

SAFETY DATA SHEET



eChem (Australia) Pty Ltd
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Emergency Contact:
1800 033 111

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: eChem Chlorothalonil 720 Fungicide

Full Product Name: eChem Chlorothalonil 720 Fungicide. Chlorothalonil.
Other Names: Chlorothalonil. Group M5 Fungicide. Chloronitrile chemical family.
Use: Agricultural fungicide for the control of certain diseases in crops.
Company: eChem (Australia) Pty Ltd.
Address: Level 4, Lantos Place, 80 Stamford Road, Indooroopilly, Qld, 4068.
ACN/ABN: 089 133 095.
Telephone Number: 1300 781 649 **Fax Number:** 1300 781 650
Emergency Contact: 1800 033 111

SECTION 2 HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.**

GHS classification of the substance/mixture

Acute Toxicity – Inhalation: Category 2.
Eye Damage/Irritation: Category 1.
Sensitization – Skin: Category 1, 1A, 1B.
Specific Target Organ Toxicity (Single Exposure): Category 3.
Carcinogenicity: Category 2.
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 1.

Signal Word: DANGER.

Hazard statements:

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mists, vapours or spray.
P271 Use only outdoors or in a well ventilated area.
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
P281 Use personal protective equipment as required.
P284 Wear respiratory protection.

SECTION 2 HAZARDS IDENTIFICATION (Continued)**Response:**

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see Safety Directions on this label).
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.

Storage and Disposal:

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with national regulations.

Pictograms:**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Chlorothalonil	1897-45-6	720 g/L
Other ingredients (including water) determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES**FIRST AID**

Ingestion:	If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 13 11 26). If swallowed, do not induce vomiting. Rinse any residual product from mouth and lips. Give water to drink and seek medical help. Do not give anything by mouth to a semi-conscious or unconscious person. If vomiting occurs, give more water to drink to assist dilution.
Eye contact:	Immediately hold eyes open and flood with clean water until chemical is removed. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation occurs and persists see a doctor.
Skin contact:	If on skin wash with soap and water. Remove contaminated clothing and launder before re-use. If irritation occurs and persists see a doctor.
Inhalation:	Remove to fresh air and observe until recovered. Seek medical advice if effects persist.

Advice to Doctor: Treat symptomatically. No specific antidote is known. Treatment is otherwise symptomatic and supportive.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Considered low risk due to water content, however upon evaporation of water the product is combustible. Low risk of explosion if involved in a fire.

Extinguishing media: Extinguish fire using media suited to burning material. If containers are ruptured contain all runoff. Preferred extinguishing media: alcohol resistant foam, CO₂ or dry chemical. Soft stream water fog if no alternatives. DO NOT use water jet. Contain all runoff.

SECTION 5 FIRE FIGHTING MEASURES (Continued)

Hazards from combustion products: This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion that can be both toxic and irritating.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated. Evacuate personnel to a safe area.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Keep out unprotected persons and animals. Wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and goggles and disposable face mask. Large spills should be dyked. Absorb spilled material with absorbent material such as sand, clay or cat litter. Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep material out of streams and sewers.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Dangerous to fish. Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Attacks eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should wear protective clothing. When preparing spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and goggles and disposable mist mask covering mouth and nose. If clothing becomes contaminated with product or wet with spray remove clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash out immediately with water. After use and before eating, drinking or smoking, Wash hands arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles and contaminated clothing.

Conditions for safe Storage: Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**National Exposure Standards:**

Exposure guidelines have not been established for this product by Safe Work Australia, however the manufacturer recommends the following guideline for chlorothalonil.

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
Chlorothalonil	0.1 mg/m ³	-

TWA = Time-weight Average STEL = Short term Exposure Limit

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that vapours and mists are minimised.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)**Personal Protective equipment (PPE):**

General: When preparing spray and using prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and goggles and disposable face mask. If clothing becomes contaminated with product or wet with spray, remove clothing immediately. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles and contaminated clothing.

Personal Hygiene: Attacks eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should wear protective clothing. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Smooth creamy light grey liquid suspension.
Odour:	Slightly pungent.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	Approximately 1.3 g/mL.
Solubility in Water:	Product suspends in water.
pH:	No data available.
Flammability:	Not flammable.
Flashpoint (°C):	Not flammable.
Poisons Schedule:	This product is a schedule 6 (S6) poison.
Formulation type:	Suspension Concentrate.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight. Avoid oxidizing materials.

Incompatible materials: Incompatible with strong acids, bases and oxidizing agents.

Hazardous Decomposition Products: Product is only likely to decompose after heating to dryness, following by continuing heat. This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion that can be both toxic and irritating Do not store for prolonged periods in direct sunlight. Avoid oxidizing materials.

Hazardous Reactions: Does not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

- Swallowed:** Acute oral toxicity LD₅₀ (rat) > 5000 mg/kg. Ingestion may cause irritation to the mouth, throat and stomach. Possible symptoms include nausea, vomiting and central nervous system depression.
- Eye:** Can be severely irritating to the eyes. Can cause eye damage unless immediately washed out of the eyes.
- Skin:** Avoid skin contact. May irritate the skin. The dermal LD₅₀ (rabbit) > 5000 mg/kg. Chlorothalonil is a skin sensitiser.
- Inhaled:** This product is toxic if inhaled. Acute inhalation LC₅₀ = 0.1 mg/L/4 hour. May irritate the respiratory tract.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Chronic Effects: Extensive testing of chlorothalonil has found no evidence of mutagenic, neurotoxic, teratogenic or reproductive effects. Subchronic toxicity studies in dogs have shown kidney toxicity, and chronic toxicity studies in rats and mice have shown kidney and forestomach tumours at high doses. This is not considered to be a risk to humans when handled and used as directed on the label.

Chlorothalonil is rapidly excreted, primarily unchanged, from the body. It is not stored in animal tissues. Safe Work Australia has classified chlorothalonil in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. Chlorothalonil is highly toxic to fish and aquatic organisms. Toxicity to fish: Rainbow trout LC₅₀ (96 hr) 0.043 mg/L; Bluegill sunfish LC₅₀ (96 hr) 0.059 mg/L. Toxic to Algae: *Selenastrum capricornutum* EC₅₀ (120 hr) 210 µg/L. Toxic to aquatic invertebrates: *Daphnia magna* EC₅₀ (48 hr) 0.07 mg/L. Low toxicity to bees. Low toxicity to birds Mallard duck LD₅₀ > 4640 mg/kg.

Environmental Fate: Chlorothalonil has low mobility in soil. Chlorothalonil is moderately persistent. In aerobic soils, the half-life is from 1 to 3 months. Increased soil moisture or temperature increases chlorothalonil degradation. It is not degraded by sunlight on the soil surface. In water the half life is 4.5 hours to 9 days. Chlorothalonil does not store in fatty tissues and is rapidly excreted from the body. It does not readily bioaccumulate.

SECTION 13 DISPOSAL CONSIDERATIONS**Spills and Disposal:****1) After intended use - containers:**

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

2) After spill or accident

Persons involved in cleanup require adequate skin protection - see section 8. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals.

SECTION 14 TRANSPORT INFORMATION

Transport: eChem Chlorothalonil 720 Fungicide is not classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail in containers less than 3000 litres as per ADG7, (See SP No. AU01). For bulk shipments as Class 9, use UN 3082, Hazchem code 2Z.

Marine and Air Transport: This product is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-
UN 3082; Class 9 (Miscellaneous Dangerous Goods); Packing Group III; Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 72% Chlorothalonil).

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 69546.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xi: Irritant.

This product is not classified as a Dangerous Good according to the ADG Code for packs less than 3000 litres (SP AU01) (7th Ed).

This product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 22 January 2015. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Ataxia: Inability to control the coordinate movements of the muscles.

Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Mutagenic: Able to produce a mutation (a change in the genetic material of cells).

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus, that is causing birth defects.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". Safe Work Australia HSIS website. (2015).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End SDS.