## Section 1 - Identification of The Material and Supplier

**Sabakem Pty Ltd**
**Suite 809, Level 8, 2 Queen St**
**Melbourne VIC 3000 AUSTRALIA**
**Phone: 03 9629 3979**
**www.sabakem.com**
**Emergency: 1800 033 111**

| | |
|---|---|
| **Chemical nature:** | Suspension concentrate containing chlorothalonil |
| **Trade Name:** | **Sabakem Chlorothalonil 720 SC Fungicide** |
| **APVMA Code:** | **86767** |
| **Product Use:** | Agricultural fungicide for use as described on the product label. |
| **Creation Date:** | **June, 2019** |
| **This version issued:** | **June, 2024** and is valid for 5 years from this date. |
| **Emergency telephone:** | **Poisons Information Centre 13 11 26 (24 hours)** |

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

**ADG Classification:** Dangerous Goods Class 6.1: Toxic substances
See details in Section 14 of this SDS.

**Classification of the substance or mixture:**

**Acute Inhalation Toxicity Category 2**
**Serious Eye Damage Category 1**
**Skin Sensitisation Category 1**
**Carcinogenicity Category 2**
**Specific Target Organ Toxicity - Single Exposure Category 3**

**The following health hazard categories fall outside the scope of the Workplace Health and Safety Regulations**

**Acute Aquatic Toxicity Category 1**
**Chronic Aquatic Toxicity Category 1**

### GHS Signal word: DANGER

**HAZARD STATEMENT(S):**

H330: Fatal if inhaled.
H318: Causes serious eye damage.

H317: May cause an allergic skin reaction.
H351: Suspected of causing cancer.
H335: May cause respiratory irritation.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENT(S):**

**PREVENTION**

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe fumes, 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 and eye or face protection.
P284: Wear respiratory protection.

**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.
P310: Immediately call a POISON CENTRE or doctor/physician.
P312: Call a POISON CENTRE or doctor if you feel unwell.
P321: Specific treatment (see the label).
P333+P313: If skin irritation or rash occurs: Get medical advice.
P362 + P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.

**STORAGE**

P405: Store locked up.
P410: Protect from sunlight.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

**DISPOSAL**

P501: Dispose of contents and containers as specified on the registered label.

## Section 3 - Composition/Information on Ingredients

| Ingredients | CAS No | Conc. (% w/v) |
|---|---|---|
| Chlorothalonil | 1897-45-6 | 72.0 |

Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.

## Section 4 - First Aid Measures

### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** If inhalation occurs, contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

**Skin Contact:** Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the

unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

**First Aid Facilities:** Eyewash and normal washroom facilities. Safety deluge showers should, if practical, be provided near to where this product is being used.

**Major Health Hazards:** Chlorothalonil can cause severe eye and skin irritation in certain formulations. Very toxic by inhalation, limited evidence of a carcinogenic effect, may cause serious damage to eyes, respiratory tract irritant, possible skin sensitiser.

## Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards**: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures. Flammability Class: No data.

**Suitable Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam or water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.

**Special Protective Equipment and Precautions for Fire Fighters:** When fighting a major fire wear self-contained breathing apparatus and protective equipment.

**Hazchem Code:** 2X

## Section 6 - Accidental Release Measures

**Environmental precautions:** In the event of a major spill, prevent spillage from entering drains or water courses with absorbent material. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains.

**Methods and materials for containment and cleaning up:** Stop leak if safe to do so and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

**Personal precautions, protective equipment and emergency procedures:** Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self-contained breathing apparatus. Suitable materials for protective clothing include PVC, Nitrile. Use impermeable gloves with care. Eye/face protective equipment should comprise, as a minimum, protective goggles. Usually, no respirator is necessary when using this product however, if there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a suitable respirator. Refer to section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

If a significant quantity of material enters drains, advise emergency services.

## Section 7 - Handling and Storage

**Precautions for Safe Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Conditions for Safe Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

**Exposure Standards:** Exposure limits have not been established by SWA for any of the significant ingredients in this product.

**Engineering Controls:** Ensure adequate ventilation of the working area.

**Respiratory Protection:** Ensure the work environment remains clean and that vapours and mists are minimised. If ventilation is inadequate, suitable respiratory protection should be worn, consult AS/NZS 1715 and AS/NZS 1716 for further information.

**Eye and Face Protection:** Eye protection such as protective glasses or goggles must be worn when this product is being used. See Australian/New Zealand Standard Industrial Eye Protection: AS1336 and AS/NZS 1337 for more information. Failure to protect your eyes may cause them harm. Emergency eye wash facilities should be provided in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered. Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard Occupational Protective Clothing: AS/NZS 4501 and Occupational Protective Footwear: AS/NZS2210 for more information.

## Section 9 - Physical and Chemical Properties

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|---|---|
| **Physical Description & colour**: | Liquid, no data regarding colour. |
| **Odour:** | No data. |
| **Boiling Point:** | Not available. |
| **Flash Point:** | No data. |
| **Freezing/Melting Point:** | No specific data. Liquid at normal temperatures. |
| **Volatiles:** | No data. |
| **Vapour Pressure:** | No data. |
| **Vapour Density:** | No data. |
| **Specific Gravity:** | No data. |
| **Water Solubility:** | No data. |
| **pH:** | No data. |
| **Volatility:** | No data. |
| **Odour Threshold:** | No data. |
| **Evaporation Rate:** | No data. |
| **Coeff Oil/water Distribution**: | No data |
| **Autoignition temp:** | No data. |

## Section 10 - Stability and Reactivity

**Possibility of Hazardous Reactions:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf-life properties.
This product will not undergo polymerisation reactions.

**Conditions to Avoid:** Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** Strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

## Section 11 - Toxicological Information

**Acute Toxicity:** Product causes acute toxicity via inhalation and is fatal if inhaled.
Following is the acute toxicity data available for the active constituent Chlorothalonil:
Acute oral toxicity - LD50 (Rat) > 10000 mg/kg; LD50 (Mice) > 6000 mg/kg;
Acute dermal toxicity - LD50 (Rat, Rabbit) > 10000 mg/kg
Acute inhalation toxicity - LC50 (Rat): 0.1 mg/L, 4 hr

If inhaled symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.
If ingested product is not harmful however may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.
Chlorothalonil is not harmful to mammals, but it can cause severe eye and skin irritation in certain formulations. Very high doses may cause a loss of muscle coordination, rapid breathing, nose bleeding, vomiting, hyperactivity, and death. Dermatitis, vaginal bleeding, bright yellow and/or bloody urine, and kidney tumours may also occur. In albino rabbits, 3 mg of chlorothalonil applied to the eyes caused mild irritation that subsided within 7 days of exposure.

**Skin Corrosion/Irritation:** Based on classification principles, the classification criteria are not met.
Product may cause irritation but is unlikely to cause anything more than mild transient discomfort.

**Serious Eye Damage/Irritation:** Causes serious eye damage.
This product is a severe eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms such as swelling of eyelids and blurred vision may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment is likely to cause permanent damage.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.
**Persons sensitised to chlorothalonil should avoid contact with this product.**
Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.
Mutagenicity studies on various animals, bacteria, and plants indicate that chlorothalonil does not cause any genetic changes. The compound is not expected to pose mutagenic risks to humans.

**Carcinogenicity:** Suspected of causing cancer.
Chlorothalonil is classed 2b IARC - possibly carcinogenic to humans by IARC.
Based on evidence from animal studies, chlorothalonil's carcinogenic potential is unclear. Male and female rats fed chlorothalonil daily over a lifetime developed carcinogenic and benign kidney tumours at the higher doses. In another study, where mice were fed high daily doses of chlorothalonil for 2 years, females developed tumours in the fore-stomach area (attributed to irritation by the compound) and males developed carcinogenic and benign kidney tumours.

**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.
Studies suggest that chlorothalonil will not affect human reproduction at expected exposure levels.
Teratogenic effects: Long-term studies indicate that high doses fed to rats caused reduced weight gains for males and females in each generation studied. A study of birth defects in rabbits showed no effects. Chlorothalonil is not expected to produce birth defects in humans.

**Specific Target Organ Toxicity (STOT)—single exposure:** May cause respiratory irritation.

**Specific Target Organ Toxicity (STOT)—repeated exposure:** Based on classification principles, the classification criteria are not met.

**Aspiration Hazard**: Based on classification principles, the classification criteria are not met.

**Chronic Health Effects:** In a number of tests of varying lengths of time, rats fed a range of doses of chlorothalonil generally showed no effects on physical appearance, behaviour, or survival. Skin contact with chlorothalonil may result in dermatitis or light sensitivity. Human eye and skin irritation is linked to chlorothalonil exposure; 14 of 20 workers exposed to 0.5% chlorothalonil in a wood preservative developed dermatitis. All workers showed swelling and inflammation of the upper eyelids. Allergic skin responses have also been noted in farm workers.

### Additional toxicological information:

The ADI for Chlorothalonil is set at 0.01mg/kg/day & the corresponding NOEL is set at 1.5mg/kg/day (Data from Australian ADI List, March 2017). ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level.
**Organ toxicity:** Chronic studies of rats and dogs fed high dietary levels show that chlorothalonil is toxic to the kidney. In addition to less urine output, changes in the kidney included enlargement, greenish-brown colour, and development of small grains.
**Fate in humans and animals:** Chlorothalonil is rapidly excreted, primarily unchanged, from the body. It is not stored in animal tissues. Residues have not been found in the tissues or milk of dairy cows fed chlorothalonil.

## Section 12 - Ecological Information

**Ecotoxicity:** Very toxic to aquatic life with long lasting effects. Avoid contaminating waterways.
**Effects on aquatic organisms:** Chlorothalonil and its metabolites are highly toxic to fish, aquatic invertebrates, and marine organisms. Fish, such as rainbow trout, bluegill, and channel catfish are noticeably affected even when chlorothalonil levels are low (less than 1 mg/L).
**Effects on birds:** Chlorothalonil is practically nontoxic to birds. Most avian wildlife are not significantly affected by this compound.
**Effects on other organisms:** The compound is nontoxic to bees.

### Persistence and Degradability:

**Breakdown in soil and groundwater:** Chlorothalonil is moderately persistent. In aerobic soils, the half-life is from 1 to 3 months.
**Breakdown in water:** In very basic water (pH 9.0), about 65% of the chlorothalonil was degraded into two major metabolites after 10 weeks.
**Breakdown in vegetation:** Chlorothalonil's residues may remain on above-ground crops at harvest, but will dissipate over time. Chlorothalonil is a fairly persistent fungicide on plants, depending on the rate of application.

**Bioaccumulative Potential:** The bioaccumulation potential of chlorothalonil is low.

**Mobility in Soil:** The mobility of chlorothalonil is medium.

## Section 13 - Disposal Considerations

**Disposal:** Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

## Section 14 - Transport Information

### Road and Rail Transport:

Classified as Dangerous Goods Class 6.1, Toxic Substances.
UN Number: 2996 ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC (CONTAINS CHLOROTHALONIL)

### Marine Transport:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

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|---|---|
| UN Number: | 2996 |
| Proper Shipping Name or Technical Name: | ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC (CONTAINS CHLOROTHALONIL) |
| Transport Hazard Class: | 6.1 |
| Packaging Group | II |
| IMDG EMS Fire: | F - A |

| | |
|---|---|
| IMDG EMS Spill: | S - A |
| Environmental hazards: | Yes. |
| Additional Information: | The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg. |

**Air Transport:**
Classified as Dangerous Goods Class 6.1, Toxic Substances.
UN Number: 2996 ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC (CONTAINS CHLOROTHALONIL)

## Section 15 - Regulatory Information

**APVMA Approval no.: 86767**

**Poison schedule (SUSMP):** Schedule 6

**AICIS:** All the constituents of this material are either listed on the Australian Inventory of Industrial Chemicals (AIIC), not required due the nature of the chemical as they are excluded as an industrial chemical or have been assessed under the Industrial Chemicals Act 1989 as amended.

## Section 16 - Other Information

**This SDS contains only safety-related information. For other data see product literature.**

**Issue Date: June 2024**

**Reason(s) for issue:** Five-year update and updated to latest GHS requirements.

**Key abbreviations or acronyms:**
ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS)
AIIC - Australian Inventory of Industrial Chemicals
APVMA – Agricultural Pesticides and Veterinary Medicines Australia
CAS number - Chemical Abstracts Service Registry Number
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
Hazchem Code - Emergency action code of numbers and letters that provide information to emergency services especially firefighters.
IARC - International Agency for Research on Cancer
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023)
STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15-minute period. The STEL should not be exceeded at any time during a normal eight hour working day.
SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons
SWA - Safe Work Australia, formerly ASCC and NOHSC
TGA – Therapeutic Goods Australia
TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.
UN Number - United Nations Number
WHS – Workplace Health and Safety

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” ((June 2023) and GHS Revision 7
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