



4 Farmers ... For Farmers  
Printing date 22.08.2016

# SAFETY DATA SHEET

According to Safe Work Australia

Revision: 22.08.2016

## 1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** 4FARMERS CHLOROTHALONIL 720 FUNGICIDE

**Recommended Use of the Chemical and Restriction on Use:** Agricultural fungicide

**Details of Manufacturer or Importer:**

4Farmers Pty Ltd  
70 McDowell Street  
Welshpool WA 6106

**Phone Number:** +61 8 9356 3446

**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2 . HAZARDS IDENTIFICATION

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG/IMSBC respectively. See details below and in Section 14 of this SDS.



skull and crossbones

Acute Tox. (Inhalation) 2 H330 Fatal if inhaled.



health hazard

Carc. 2 H351 Suspected of causing cancer.



corrosion

Eye Dam. 1 H318 Causes serious eye damage.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

**Signal Word** Danger

**Hazard Statements**

H330 Fatal if inhaled.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

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H351 Suspected of causing cancer.  
 H335 May cause respiratory irritation.  
 H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P284 [In case of inadequate ventilation] wear respiratory protection.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P273 Avoid release to the environment.  
 P271 Use only outdoors or in a well-ventilated area.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.  
 P320 Specific treatment is urgent (see on this label).  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P391 Collect spillage.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container in accordance with local/regional/national regulations.

### 3 . COMPOSITION AND INFORMATION ON INGREDIENTS

**Chemical Characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

1897-45-6	Chlorothalonil (ISO)	53.2%
<p style="font-size: small; margin: 0;"> <span style="color: red;">⚠</span> Acute Tox. (Inhalation) 2, H330; <span style="color: red;">⚠</span> Carc. 2, H351; <span style="color: red;">⚠</span> Eye Dam. 1, H318; <span style="color: red;">⚠</span> Aquatic Acute 1, H400; Aquatic Chronic 1, H410; <span style="color: red;">⚠</span> Skin Sens. 1, H317; STOT SE 3, H335         </p>		

### 4 . FIRST AID MEASURES

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

**Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention.

**Eye Contact:**

In case of eye contact, hold eyelids open and rinse with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting. Rinse mouth and give plenty of water to drink. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

**Information for Doctor:**

Establish a patient airway with suction where necessary.  
 Watch for signs of respiratory insufficiency and assist ventilation as necessary.  
 Administer oxygen by non-rebreather mask at 10 to 15 L/min.

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Monitor and treat, where necessary, for pulmonary oedema.

**Symptoms Caused by Exposure:**

Ingestion: Ingestion may cause irritation of the mouth, throat and stomach, nausea, vomiting and central nervous system depression.

**5 . FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Foam, dry chemical powder or carbon dioxide.

**Specific Hazards Arising from the Chemical:**

Non-combustible. Decomposition may produce toxic fumes of carbon dioxide, oxides of nitrogen, hydrogen chloride and phosgene.

**Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

**6 . ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

**Methods and Materials for Containment and Cleaning Up:**

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

**7 . HANDLING AND STORAGE****Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from prolonged periods in direct sunlight. Keep away from strong oxidising agents.

**8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION****Exposure Standards:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

**Respiratory Protection:**

Use a Safe Work Australia approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Elbow-length PVC gloves, cotton overall buttoned to the neck and wrist, safety boots and a washable hat. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 for more information.

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**Eye and Face Protection:**

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 . PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**

<b>Form:</b>	Viscous suspension
<b>Colour:</b>	White
<b>Odour:</b>	No information available
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/Melting range:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	Not applicable
<b>Flammability:</b>	Product is not flammable.
<b>Auto-ignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Vapour Pressure at 25 °C:</b>	0.076 kPa (chlorothalonil)
<b>Density:</b>	No information available
<b>Relative Density:</b>	1.354
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Partly miscible. Disperses with water.
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>% Volatiles by Volume:</b>	~40 %

## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** Direct sunlight.

**Incompatible Materials:** Strong oxidising agents.

**Hazardous Decomposition Products:**

Decomposition may produce toxic fumes of carbon dioxide, oxides of nitrogen, hydrogen chloride and phosgene.

## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****1897-45-6 Chlorothalonil (ISO)**

Oral	LD <sub>50</sub>	>5000 mg/kg (rat)
Dermal	LD <sub>50</sub>	>5000 mg/kg (rat)
Inhalation	LC <sub>50</sub> /4 h	0.1 mg/l (rat)

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**Acute Health Effects****Inhalation:**

Fatal if inhaled. Not a likely route of exposure when handling concentrate. Inhalation of spray mist during spraying may cause respiratory irritation.

**Skin:** May irritate the skin.

**Eye:**

Eye contact with the concentrate will cause severe irritation and possible damage unless washed off immediately.

**Ingestion:**

Ingestion may cause irritation of the mouth, throat and stomach, nausea, vomiting and central nervous system depression.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.

**Serious Eye Damage / Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:**

Suspected of causing cancer.

Chlorothalonil is classified by IARC as Group 2B - Possibly carcinogenic to humans.

Chlorothalonil is classified by Safe Work Australia as Carcinogen Category 3.

**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Single Exposure:** May cause respiratory irritation.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure.

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

**Chronic Health Effects:**

Prolonged or repeated skin contact may cause sensitisation. Some individuals may become sensitive to contact with chlorothalonil.

**Existing Conditions Aggravated by Exposure:** No information available

**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for chlorothalonil for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** Chlorothalonil is not toxic to birds or bees.

**Aquatic toxicity:**

Very Toxic to aquatic life with long lasting effects.

**1897-45-6 Chlorothalonil (ISO)**

EC <sub>50</sub> /120hr	210 µg/l (senastrum capricornutum)
LC <sub>50</sub> /48 h	70 µg/l (daphnia)
LC <sub>50</sub> /96 h	0.043 mg/l (rainbow trout)
	0.059 mg/l (bluegill)

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**Persistence and Degradability:**

Average field half life of chlorothalonil is 7-30 days. In water, the half life of chlorothalonil is 4.5 hours to 9 days. Chlorothalonil has high persistence in water/soil.

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

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

## 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.

**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

## 14 . TRANSPORT INFORMATION

**UN Number**

**ADG** Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01).

**IMDG, IATA** UN3082

**Proper Shipping Name**

**ADG** Not regulated

**IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil (ISO)), MARINE POLLUTANT

**IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil (ISO))

**Dangerous Goods Class**

**ADG Class:** Not regulated

**IMDG Class:** 9 Miscellaneous dangerous substances and articles.

**Packing Group:**

**ADG** Not regulated

**IMDG, IATA** III

**Marine pollutant:** Yes

Symbol (fish and tree)

**EMS Number:** F-A,S-F

**Hazchem Code:** 3Z

**Limited Quantities:** 5L

## 15 . REGULATORY INFORMATION

**Australian Inventory of Chemical Substances:**

1897-45-6	Chlorothalonil (ISO)
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**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 6

## 16 . OTHER INFORMATION

**Date of Preparation or Last Revision:** 22.08.2016

**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Tox. (Inhalation) 2: Acute toxicity – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation, Hazard Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

**Disclaimer**

This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.