

Printing date 12.12.2017

Revision: 12.12.2017

## 1 Identification

**Product Name:** CHLOROTHALONIL 720 by TITAN

**Other Means of Identification:** Mixture

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

**Details of Manufacturer or Importer:**

Titan Ag Pty Ltd  
15/16 Princes Street  
Newport NSW 2106

**Phone Number:** 02 9999 6655

**Emergency telephone number:** 02 9999 6655

## 2 Hazard(s) 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 classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



skull and crossbones

Acute Toxicity (Inhalation) 1      H330 Fatal if inhaled.



health hazard

Carcinogenicity 2      H351 Suspected of causing cancer.



corrosion

Serious Eye Damage/Irritation 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 Sensitisation 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**

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P260 Do not breathe dust/fume/gas/mist/vapours/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.  
 P284 [In case of inadequate ventilation] wear respiratory protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep 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.  
 P310 Immediately call a POISON CENTER/doctor.  
 P320 Specific treatment is urgent (see on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 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)	72%
	⚠ Acute Toxicity (Inhalation) 1, H330; ⚠ Carcinogenicity 2, H351; ⚠ Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sensitisation 1, H317; STOT SE 3, H335	

### 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.

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**Symptoms Caused by Exposure:**

Inhalation: Fatal if inhaled. May cause respiratory irritation, increased secretion of mucous and headache.

Skin Contact: May cause skin irritation, itchiness and reddening of contacted skin. Skin sensitiser.

Eye Contact: May cause severe eye irritation, stinging, reddening, watering, swelling of eyelids and blurred vision.

Ingestion: May cause irritation of the mouth with extreme pain and reddening of skin.

### 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use fire extinguishing methods suitable to surrounding conditions.

**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon and nitrogen, hydrogen chloride and phosgene.  
Non combustible.

**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 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 in original container tightly closed when not in use. Protect from prolonged periods in direct sunlight.

### 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 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.

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**Skin Protection:**

PVC, PVA, nitrile, neoprene, rubber or vinyl 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 AS/NZS 4501 for more information.

**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>	Liquid
<b>Colour:</b>	White, opaque
<b>Odour:</b>	No information available
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	~100 °C
<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>	2.37 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>	Disperses in water.
<b>Partition Coefficient (n-octanol/water) at 25 °C:</b>	2.92 log POW

### 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:** No information available

**Hazardous Decomposition Products:** Carbon dioxide, oxides of nitrogen, hydrogen chloride and phosgene.

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## 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)

**Acute Health Effects****Inhalation:** Fatal if inhaled. May cause respiratory irritation, increased secretion of mucous and headache.**Skin:** May cause skin irritation, itchiness and reddening of contacted skin. Skin sensitiser.**Eye:** Causes severe eye irritation, stinging, reddening, watering, swelling of eyelids and blurred vision.**Ingestion:**

May cause irritation of the mouth with extreme pain and reddening of skin. 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.

**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:**

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:**

Prolonged or repeated skin contact may cause skin 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 NOAEL 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: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2017).

## 12 Ecological Information

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

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<b>Aquatic toxicity:</b>	
<b>1897-45-6 Chlorothalonil (ISO)</b>	
EC <sub>50</sub> /120hr	210 µg/l (selenastrum 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)

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**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.

**Other adverse effects:** No information available

## 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** Not regulated

**Proper Shipping Name** Not regulated

**Dangerous Goods Class** Not regulated

**Packing Group:** Not regulated

## 15 Regulatory Information

**Australian Inventory of Chemical Substances:**

1897-45-6 Chlorothalonil (ISO)

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**

Poisons Schedule: 6

## 16 Other Information

**Date of Preparation or Last Revision:** 12.12.2017

**Abbreviations and acronyms:**

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 percent

LD<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 Toxicity (Inhalation) 1: Acute toxicity – Category 1

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Carcinogenicity 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

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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 - February 2016"

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