



Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

Revision: 01.08.2019

1 Identification

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural insecticide

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.

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 (Oral) 3 H301 Toxic if swallowed.



environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

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

Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H301 Toxic if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from flames and hot surfaces. No smoking.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P370+P378 In case of fire: Use to extinguish: CO₂, powder or water spray.

P391 Collect spillage.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

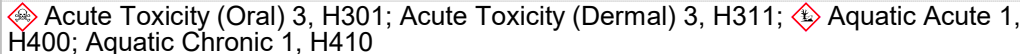
Revision: 01.08.2019

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

(Contd. of page 1)

3 Composition and Information on Ingredients

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

CAS: 2921-88-2	Chlorpyrifos (ISO)	45%
		

Additional information:

Liquid Hydrocarbon (A), CAS No. not supplied: 474 g/L

Liquid Hydrocarbon (B), CAS No. not supplied: 488 g/L

4 First Aid Measures

Inhalation:

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

Skin Contact:

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

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. If swallowed, activated charcoal may be advised. Give atropine if instructed.

Symptoms Caused by Exposure:

Inhalation: Poisonous if inhaled. May cause symptoms similar to ingestion.

Skin Contact: Poisonous in contact with skin. May cause symptoms similar to ingestion. May cause skin irritation.

Eye Contact: May cause eye irritation, stinging, reddening and watering.

Ingestion: Poisonous if swallowed. May cause numbness, tingling sensations, incoordination, headache, dizziness, nausea, abdominal cramps, excessive sweating and salivation, blurred vision, respiratory depression, unconsciousness, incontinence, convulsions, fatigue, slowed heart rate, seizures and possible fatality.

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, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, oxides of sulphur, other sulphur compounds, oxides of phosphorous, other phosphorous compounds, hydrogen chloride, other chlorine compounds, smoke and water.

Product is combustible.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

Revision: 01.08.2019

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

(Contd. of page 2)

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 respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

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. If absorbent material is not available or spill is too large, create a dike to stop spill from spreading. 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. Use only outdoors or in a well-ventilated area. 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 after 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 heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, strong acids and strong bases.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 291-88-2 chlorpyrifos**

NES	TWA: 0.2 mg/m ³
	SK

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

Use an approved half facepiece respirator with combined dust and gas cartridge 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 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 AS/NZS 4501 for more information.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

Revision: 01.08.2019

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

(Contd. of page 3)

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:

Form:	Liquid
Colour:	Yellow
Odour:	Characteristic hydrocarbon
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	>178 °C
Flash Point:	>63 °C
Flammability:	Combustible
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density at 20 °C:	1.05-1.15
Vapour Density:	No information available
Evaporation Rate at 20 °C:	<0.06
Solubility in Water:	Emulsifies into water.
% Volatiles by Weight:	<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: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products:

Oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, oxides of sulphur, other sulphur compounds, oxides of phosphorous, other phosphorous compounds, hydrogen chloride, other chlorine compounds, smoke and water.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****CAS: 2921-88-2 Chlorpyrifos (ISO)**

Oral	LD ₅₀	1000 mg/kg (rabbit) 500-504 mg/kg (guinea pig) 60 mg/kg (mice)
Dermal	LD ₅₀	1000-2000 mg/kg (rabbit) >2000 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	>0.2 mg/L (rat)

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

Revision: 01.08.2019

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

(Contd. of page 4)

Acute Health Effects**Inhalation:** Poisonous if inhaled. May cause symptoms similar to ingestion.**Skin:** Poisonous in contact with skin. May cause symptoms similar to ingestion. May cause skin irritation.**Eye:** May cause eye irritation, stinging, reddening and watering.**Ingestion:**

Poisonous if swallowed. May cause numbness, tingling sensations, incoordination, headache, dizziness, nausea, abdominal cramps, excessive sweating and salivation, blurred vision, respiratory depression, unconsciousness, incontinence, convulsions, fatigue, slowed heart rate, seizures and possible fatality.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

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:**

Repeated exposure may cause allergic disorders.

Repeated or prolonged exposure to organophosphates may result cumulative poisoning, with the same effects as acute poisoning including the delayed symptoms. Other effects reported in workers repeatedly exposed include impaired memory and concentration, disorientation, severe depressions, irritability, confusion, headache, speech difficulties, delayed reaction times, nightmares, sleepwalking, and drowsiness or insomnia.

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

The Australian Acceptable Daily Intake (ADI) for chlorpyrifos for a human is 0.001 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.03 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', 2019).

12 Ecological Information

Ecotoxicity:

Serious hazard to birds and bees.

LD50 28.9 mg/kg (birds).

Aquatic toxicity: Very Toxic to aquatic life with long lasting effects.**Persistence and Degradability:**

Persistent in soils. Half-life in soil normally ranges from 60 to 120 days, though may be as long as a year, depending on soil type.

Bioaccumulative Potential: No information available**Mobility in Soil:**

Due to relatively low solubility and strong potential to adsorb to soil, chlorpyrifos is immobile in soils.

(Contd. on page 6)

Safety Data Sheet

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(Contd. of page 5)

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 ADG, IMDG, IATA	UN3018
Proper Shipping Name ADG	3018 ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (chlopyrifos (ISO))
IMDG	ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (chlopyrifos (ISO)), MARINE POLLUTANT
IATA	ORGANOPHOSPHEROUS PESTICIDES, LIQUID TOXIC, (chlopyrifos (ISO))
Dangerous Goods Class ADG Class:	6.1 Toxic substances.
Packing Group: ADG, IMDG, IATA	III
Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-A
Hazchem Code:	2X
Special Provisions:	61, 223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP28

15 Regulatory Information

Australian Inventory of Chemical Substances:

CAS: 2921-88-2 | Chlorpyrifos (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: 01.08.2019**Prepared by:** MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Printing date 01.08.2019

Revision: 01.08.2019

Product Name: CHLORPYRIFOS PC 450 INSECTICIDE by TITAN

(Contd. of page 6)

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)

LC₅₀: Lethal concentration, 50 percentLD₅₀: 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)

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity (Oral) 3: Acute toxicity – 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 - February 2016”

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