

# Safety Data Sheet

according to WHS Regulations

Print date: 15.08.2024

Revision date: 13.08.2024

## 1 Identification

**Product Name: TITAN ALUMINIUM PHOSPHIDE TABLETS**

**Other Means of Identification:** Mixture

**APVMA Approval Number:** 87255

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

**Details of Manufacturer or Importer:**

Titan Ag Pty Ltd  
Princes Street Marina  
Suite 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).



Flame

Water-react. 1

H260 In contact with water releases flammable gases which may ignite spontaneously.



Skull and crossbones

Acute Toxicity (Oral) 2

H300 Fatal 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.



Acute Toxicity (Dermal) 4 H312 Harmful in contact with skin.

**Signal Word** Danger

**Hazard Statements**

H260 In contact with water releases flammable gases which may ignite spontaneously.

H300 Fatal if swallowed.

H312 Harmful in contact with skin.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P223

Keep away from any possible contact with water, because of violent reaction and possible flash fire.

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P231+P232	Handle and store contents under inert gas. Protect from moisture.
P264	Wash 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.
P302+P335+P334	IF ON SKIN: Brush off loose particles from skin and immerse in cool water.
P302+P352	IF ON SKIN: Wash with plenty of water.
P312	Call a POISON CENTER/doctor if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use CO <sub>2</sub> , sand, extinguishing powder to extinguish.
P391	Collect spillage.
P402+P404	Store in a dry place. Store in a closed container.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplementary (non-GHS) hazard statements recognised in Australia**

AUH032 Contact with acids liberates very toxic gas.

**3 Composition and Information on Ingredients****Chemical Characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

CAS: 20859-73-8	Aluminium phosphide	33%
	 Water-react. 1, H260;  Acute Toxicity (Oral) 1, H300; Acute Toxicity (Dermal) 3, H311; Acute Toxicity (Inhalation) 1, H330;  Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100)	

**4 First Aid Measures****Inhalation:** If inhaled, remove to fresh air. 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 irritation occurs.

**Eye Contact:**

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

**Ingestion:**

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: May cause respiratory irritation.

Skin Contact: Harmful in contact with skin. May cause skin irritation.

Eye Contact: May cause eye irritation.

Ingestion: Fatal if swallowed. May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

**5 Fire Fighting Measures****Suitable Extinguishing Media:** Dry agent only. Do not use water.**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include phosphine gas, oxides of aluminium, oxides of phosphorous and other phosphorous compounds.

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Product is not flammable, but released phosphine gas is flammable.  
Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.  
Prevent run-off from fire fighting entering drains or water courses.  
HAZCHEM Code: 4WE

**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 dust/particulate filter respirator and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe dust. Ensure adequate ventilation. Avoid generating dust.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.  
Inform respective authorities in case of seepage into water course or sewage system.

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

Stop leak if safe to do so and sweep granules into a pile and shovel into drums for subsequent disposal. Avoid generating dust. Provide adequate ventilation. Decontaminate spill area with detergent and water.

## 7 Handling and Storage

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of dust.  
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 excessive humidity, heat, sparks, open flames and other sources of ignition. Keep away from water, acids, and bases.

## 8 Exposure Controls and Personal Protection

**Exposure Standards:****CAS: 20859-73-8 Aluminium phosphide**

WES	TWA: 2 mg/m <sup>3</sup> as Al
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**Engineering Controls:**

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

**Respiratory Protection:**

Where an inhalation risk exists, wear approved particulate respirator (filter type P). At high dust levels, wear a powered air purifying respirator (PAPR) with P3 filter or an air-line respirator or a full-face P3 (particulate) respirator. See Australian/New Zealand Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Elbow-length PVC 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.

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**Eye and Face Protection:**

Eye and face protectors for protection against dust. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Tablets
<b>Colour:</b>	White
<b>Odour:</b>	Odourless, but releases phosphine gas which has a carbide-like smell
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	Not applicable
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	Not applicable
<b>Flammability (solid, gas):</b>	Contact with water liberates extremely flammable gases.
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	Not applicable
<b>Relative Density:</b>	~1.1
<b>Vapour Density:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Solubility in Water:</b>	Reacts vigorously with water
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>Viscosity:</b>	No information available

## 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** No dangerous reactions known under conditions of normal use.

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

**Conditions to Avoid:** Excessive humidity, heat, sparks, open flames and other sources of ignition.

**Incompatible Materials:** Water, acids, and bases.

**Hazardous Decomposition Products:**

Phosphine gas, oxides of aluminium, oxides of phosphorous and other phosphorous compounds.

## 11 Toxicological Information

**Toxicity:****LD50/LC50 Values:****CAS: 20859-73-8 Aluminium phosphide**

Oral	LD50	8.7 mg/kg (Rattus norvegicus (rat))
Dermal	LD50	460 mg/kg (Rattus norvegicus (rat))
Inhalation	LC50/4 h	11 mg/l (Rattus norvegicus (rat))

**Acute Health Effects**

**Inhalation:** May cause respiratory irritation.

**Skin:** Harmful in contact with skin. May cause skin irritation.

**Eye:** May cause eye irritation.

**Ingestion:** Fatal if swallowed. May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

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**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:**

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

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:** No data associated with long term health effects.**Existing Conditions Aggravated by Exposure:** No data available.**Additional toxicological information:** Very toxic

## 12 Ecological Information

**Ecotoxicity:****Aquatic toxicity:** Very toxic to aquatic life with long lasting effects.**Persistence and Degradability:** No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.**Mobility in Soil:** No data available on finished product.**Other adverse effects:** No further relevant 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**

UN1397

**Proper Shipping Name****ADG, IMDG, IATA**

ALUMINIUM PHOSPHIDE mixture, ENVIRONMENTALLY HAZARDOUS

**Dangerous Goods Class****ADG Class:**

4.3

**Packing Group:****ADG, IMDG, IATA**

I

**EMS Number:**

F-G,S-N

**Hazchem Code:**

4WE

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**Excepted quantities (EQ):** E0**Limited Quantities:** 0**Packagings & IBCs - Packing Instruction:** P403

## 15 Regulatory Information

**Australian Inventory of Industrial Chemicals:**

All components are on the inventory, or in compliance with the inventory.

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

Poisons Schedule: 7

**Australian Pesticides and Veterinary Medicines Authority:**

This product is registered with the Australian Pesticides and Veterinary Medicines Authority. APVMA approval number 87255.

## 16 Other Information

**Date of Preparation or Last Revision:** 13.08.2024**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

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 percent

LD50: 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)

Water-react. 1: Substances and mixtures, which in contact with water, emit flammable gases. Hazard Category 1

Acute Toxicity (Oral) 1: Acute toxicity – Category 1

Acute Toxicity (Oral) 2: Acute toxicity – Category 2

Acute Toxicity (Dermal) 3: Acute toxicity – Category 3

Acute Toxicity (Dermal) 4: Acute toxicity – Category 4

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 - July 2020".

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