

1 Identification

Product Name: TITAN ALUMINIUM PHOSPHIDE BLANKET

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: For the control of storage pests.

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).



flame

Water-react. 2 H261 In contact with water releases flammable gases.



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.

Signal Word Danger

Hazard Statements

H261 In contact with water releases flammable gases.

H300 Fatal if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P223 Do not allow contact with water.

P231+P232 Handle under inert gas. Protect from moisture.

P280 Wear protective gloves / eye protection / face protection.

P273 Avoid release to the environment.

P264 Wash hands thoroughly after handling.

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

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.

P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

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P391 Collect spillage.
 P405 Store locked up.
 P402+P404 Store in a dry place. Store in a closed container.
 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:**

20859-73-8	Aluminium phosphide  Water-react. 2, H261;  Acute Toxicity (Oral) 2, H300;  Aquatic Acute 1, H400;  Aquatic Chronic 1, H410	56%
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4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. DO NOT administer mouth-to-mouth resuscitation - use other forms of resuscitation. The preferred type is a Balloon Type Resuscitator. 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 if symptoms occur.

Eye Contact:

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

Ingestion:

If swallowed, do not induce vomiting. Rinse mouth thoroughly with water. Do not give anything by mouth to an unconscious person. Do NOT give mouth to mouth resuscitation of this product has been swallowed. If a patient has swallowed aluminium phosphide he/she may be emitting toxic phosphine gas. First aid and medical staff should take precautions against exposure to phosphine emitted by such a patient. Seek immediate medical attention.

Symptoms Caused by Exposure:

Product will react with skin, eye or oral moisture, liberating phosphine gas which is toxic if inhaled. Symptoms of mild to moderate acute aluminium phosphide toxicity include nausea, abdominal pain, tightness in chest, excitement, restlessness, agitation and chills. Mild exposure is reversible. Symptoms of more severe toxicity include, diarrhoea, cyanosis, difficulty breathing, pulmonary oedema, respiratory failure, tachycardia (rapid pulse) and hypotension (low blood pressure), dizziness and/or death.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Dry sand, dry chemical powder and carbon dioxide. Water MUST NOT be allowed to come into contact with the product since a dangerous reaction is likely to take place.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen and phosphorus, aluminium compounds, ammonia and water.

Will react with water (even atmospheric water vapour) liberating toxic, flammable phosphine gas.

Special Protective Equipment and Precautions for Fire Fighters:

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

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6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved self-contained breathing apparatus or full face respirator fitted with a type "B" gas cartridge for minor spills, solvent resistant gloves, protective clothing, apron and boots. 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:

Sweep up and collect recoverable product into labelled containers, and dispose of promptly. Under no circumstances should any drum which contains aluminium phosphide be sealed as it may react with moisture in the container, and explode.

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 in original container tightly closed when not in use. Containers must be kept dry. Keep away from water, strong oxidising agents and acids.

8 Exposure controls and personal protection

Exposure Standards:

20859-73-8 Aluminium phosphide

WES	TWA: 2 mg/m ³ as Al
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7803-51-2 Phosphine

WES	STEL: 1.4 mg/m ³ , 1 ppm TWA: 0.42 mg/m ³ , 0.3 ppm
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Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Use a full face mask fitted with a type "B" cartridge in everyday situations or self contained breathing apparatus should be considered if large quantities of this product (or phosphine gas) are involved. See Australian Standards AS/NZS 1715 and 1716 for more information.

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.

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Eye and Face Protection:

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

9 Physical and Chemical Properties

Appearance:

Form:	Granular powder presented enclosed in a blanket-like package
Colour:	Greyish
Odour:	Garlic odour
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	Not applicable.
Relative Density:	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions:

Will react with water (even atmospheric water vapour) liberating toxic, flammable phosphine gas.

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

Conditions to Avoid: Containers must be kept dry.

Incompatible Materials: Water, strong oxidising agents and acids.

Hazardous Decomposition Products:

Oxides of carbon, nitrogen and phosphorus, aluminium compounds, ammonia and water.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****20859-73-8 Aluminium phosphide**

Oral	LD ₅₀	0.4 mg/kg (rat)
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Acute Health Effects**Inhalation:**

Significant inhalation exposure of aluminium phosphide is considered to be unlikely. However, there is a risk of inhalation of phosphine gas in normal use if no protective measures have been taken, and inhaled dust will liberate phosphine by reacting with body moisture.

Skin:

No irritating effect. Note however that product will react with skin moisture, liberating phosphine gas which is toxic if inhaled.

Eye:

No irritating effect. Note however that product will react with eye moisture, liberating phosphine gas which is toxic if inhaled.

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Ingestion: Fatal if swallowed.**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:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

Acute toxicity resulting from aluminium phosphide exposure is apparent most immediately in the heart and lungs; it may also affect the central nervous system, liver and kidneys.

12 Ecological Information

Ecotoxicity: No information available**Aquatic toxicity:**

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

Persistence and Degradability:

Aluminium phosphide will break down spontaneously in the presence of water to form a gaseous product, and so it is non-persistent and non-mobile in the soil environment, and poses no risk to groundwater.

Bioaccumulative Potential: Bioaccumulation is not expected to occur.**Mobility in Soil:** Non-mobile in the soil environment**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	UN1397
Proper Shipping Name	ALUMINIUM PHOSPHIDE
Dangerous Goods Class	4.3
Subsidiary Risk:	6.1
Packing Group:	I
EMS Number:	F-G,S-N

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Hazchem Code: 4W
Limited Quantities: 0
Packagings & IBCs - Packing Instruction: P403

15 Regulatory information

Australian Inventory of Chemical Substances:

20859-73-8 Aluminium phosphide

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
 Poisons Schedule: 7

16 Other information

Date of Preparation or Last Revision: 08.03.2017**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au

Abbreviations and acronyms:

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)

Water-react. 2: Substances and mixtures, which in contact with water, emit flammable gases. Hazard Category 2

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

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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