

1 Identification

Product Name: TITAN ETHEPHON 900 SL GROWTH REGULATOR

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural plant growth regulator

Details of Manufacturer or Importer:

Titan Ag Pty Ltd
15/16 Princess 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 (Dermal) 3 H311 Toxic in contact with skin.



corrosion

Skin Corrosion/Irritation 1C H314 Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Acute Toxicity (Oral) 4 H302 Harmful if swallowed.

Acute Toxicity (Inhalation) 4 H332 Harmful if inhaled.

Aquatic Acute 2 H401 Toxic to aquatic life.

Signal Word Danger

Hazard Statements

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P260 Do not breathe dusts or mists.

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P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

Additional Information AUH071 Corrosive to the respiratory tract.

3 Composition and Information on Ingredients

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

16672-87-0	2-chloroethylphosphonic acid	90%
<p>⚠ Acute Toxicity (Dermal) 3, H311; ⚠ Skin Corrosion/Irritation 1C, H314; Serious Eye Damage/Irritation 1, H318; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Toxicity (Oral) 4, H302; ⚠ Acute Toxicity (Inhalation) 4, H332; Aquatic Acute 2, H401</p>		

Non Hazardous Components:

7732-18-5	Water	10%
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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 rinse affected areas with warm water for at least 30 minutes. Do not interrupt rinsing. Seek immediate medical attention.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 30 minutes. Do not interrupt rinsing. Seek immediate medical attention.

Ingestion:

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

Symptoms Caused by Exposure:

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Inhalation: Harmful if inhaled. Corrosive to the respiratory tract. Burns to the respiratory tract may lead to pulmonary oedema.

Skin Contact: Toxic in contact with skin. Causes severe skin burns and ulceration.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. May cause burns and ulceration to the gastrointestinal tract.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Use fire extinguishing methods suitable to surrounding conditions. Water fog or fine spray is preferred for large fires.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and phosphorus, other phosphorus compounds, hydrogen chloride, other chlorine compounds, water and smoke.

This product is not flammable, but may decompose when heated.

May react with bases and metals releasing significant amounts of heat. Reactions with metals may generate flammable hydrogen gas.

Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

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.

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. Wash spill area with water.

Contaminated areas may be neutralised by washing with weak or dilute bases such as baking soda, washing soda or limestone.

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 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 extreme temperatures and direct sunlight. Keep away from strong oxidising agents, bases, zinc, tin, aluminium and their alloys. Check containers periodically for signs of corrosion or leaks.

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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:

Respiratory protection is not required under normal use conditions.

Use an 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:

PVC, rubber or viton 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:

Form:	Liquid
Colour:	Clear, straw coloured liquid.
Odour:	Characteristic mild odour.
Odour Threshold:	No information available
pH-Value:	May be < 1.0
Melting point/freezing point:	<0 °C
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	170 °C
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure at 20 °C:	2.37 kPa (water vapour pressure)
Relative Density at 20 °C:	1.38
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Completely soluble
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	No information available

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10 Stability and Reactivity

Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur.

May react with bases and metals releasing significant amounts of heat. Reactions with metals may generate hydrogen gas.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.**Conditions to Avoid:** Extreme temperatures and direct sunlight.**Incompatible Materials:** Strong oxidising agents, bases, zinc, tin, aluminium and their alloys.**Hazardous Decomposition Products:**

Oxides of carbon and phosphorus, other phosphorus compounds, hydrogen chloride, other chlorine compounds, water and smoke.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****16672-87-0 2-chloroethylphosphonic acid**

Oral	LD ₅₀	1.6 g/kg (rat)
Dermal	LD ₅₀	>5 g/kg (rabbit)

Acute Health Effects**Inhalation:**

Harmful if inhaled. Corrosive to the respiratory tract. Burns to the respiratory tract may lead to pulmonary oedema.

Skin: Toxic in contact with skin. Causes severe skin burns and ulceration.**Eye:** Causes serious eye damage.**Ingestion:** Harmful if swallowed. May cause burns and ulceration to the gastrointestinal tract.**Skin Corrosion / Irritation:** Causes severe skin burns.**Serious Eye Damage / Irritation:** Causes serious eye damage.**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:**

Prolonged eye contact may cause permanent damage, scarring or blindness.

Studies have shown that repeated ingestion of ethephon may cause diarrhoea, stomach cramps, increase or decrease in appetite and increased frequency of urination.

Existing Conditions Aggravated by Exposure: No information available

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Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for ethephon for a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.17 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: This product is slightly toxic to birds and fish.

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

Persistence and Degradability: This product is biodegradable and will not accumulate in soil or water.

Bioaccumulative Potential: Bioaccumulation is not expected to occur.

Mobility in Soil: Ethephon has low to moderate mobility in soils.

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	UN3265
Proper Shipping Name	
ADG, IATA	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-chloroethylphosphonic acid)
IMDG	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-chloroethylphosphonic acid), MARINE POLLUTANT
Dangerous Goods Class	
ADG Class:	8 Corrosive substances.
Packing Group:	
ADG, IMDG, IATA	III
Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-B
Hazchem Code:	2X
Special Provisions:	223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP1, TP28

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15 Regulatory Information

Australian Inventory of Chemical Substances:

16672-87-0	2-chloroethylphosphonic acid
7732-18-5	Water

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 09.10.2017

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

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)

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

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

Skin Corrosion/Irritation 1C: Skin corrosion/irritation – Category 1C

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

Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

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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