

SAFETY DATA SHEET

According to Safe Work Australia

Printing date 07.05.2015

Revision: 07.05.2015

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: TITAN ETHEPHON 720 GROWTH REGULATOR**Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Plant growth regulator**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. HAZARDS 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).



corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Signal Word Danger**Hazard Statements**

H312+H332 Harmful in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P273 Avoid release to the environment.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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).

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P362+P364	Take off contaminated clothing and wash it before reuse.
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:**

16672-87-0	2-chloroethylphosphonic acid	72%
	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412	

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, 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. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Information for Doctor: This product will cause cholinesterase inhibition.

Symptoms Caused by Exposure:

Inhalation: Harmful if inhaled. Corrosive to the tissue of the mucous membranes and upper respiratory tract.

Skin Contact: Harmful in contact with skin. Causes skin burns.

Eye Contact: Corrosive to eyes. It will cause severe pain and permanent blindness and facial scarring unless treated promptly.

Ingestion: Causes burning to the mouth and throat. Corrosive to the gastrointestinal tract. It will cause heavy salivation and secretion in the lungs, lachrymation, blurred vision, involuntary defecation, diarrhea, tremor, ataxia, sweating, hypothermia, lowered heart rate, and/or a fall in blood pressure, dizziness, drowsiness, confusion, weakness, muscle cramps and spasms, change in pupil size, fever, seizures, incoordination, convulsions and coma as a result of their action at cholinergic nerve sites.

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 phosphorus and hydrogen chloride gas.

There is no risk of an explosion under normal circumstances. The product will not burn until water component is driven off.

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 appropriate 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.

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 container tightly closed when not in use. Protect from heat and extreme temperatures. Store below 30 °C. Keep away from strong bases.

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 a Safe Work Australia 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, 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.

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9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Liquid
Colour:	Clear colourless to pale yellow
Odour:	Mild
Odour Threshold:	Not determined.
pH-Value:	Not determined.
Melting point/Melting range:	~0 °C
Initial Boiling Point/Boiling Range:	100 °C
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Auto-ignition Temperature:	Product is not self-igniting.
Decomposition Temperature:	Not determined.
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure at 20 °C:	2.37 kPa
Relative Density at 20 °C:	1.3
Vapour Density:	Not determined.
Evaporation Rate:	Not determined.
Solubility in Water:	Completely soluble

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 and extreme temperatures

Incompatible Materials: Strong bases

Hazardous Decomposition Products: Oxides of carbon and phosphorus and hydrogen chloride gas.

11 . TOXICOLOGICAL INFORMATION

Toxicity:**Acute Health Effects**

Inhalation: Harmful if inhaled. Corrosive to the tissue of the mucous membranes and upper respiratory tract.

Skin: Harmful in contact with skin. Causes skin burns.

Eye:

Corrosive to eyes. It will cause severe pain and permanent blindness and facial scarring unless treated promptly.

Ingestion:

Causes burning to the mouth and throat. Corrosive to the gastrointestinal tract. It will cause cholinesterase inhibition. Cholinesterase inhibitors can cause heavy salivation and secretion in the lungs, lachrymation, blurred vision, involuntary defecation, diarrhea, tremor, ataxia, sweating, hypothermia, lowered heart rate, and/or a fall in blood pressure, dizziness, drowsiness, confusion, weakness, muscle cramps and spasms, change in pupil size, fever, seizures, incoordination, convulsions and coma as a result of their action at cholinergic nerve sites.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye damage.

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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 minor exposures may have a cumulative effect.**Existing Conditions Aggravated by Exposure:** No information available**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 NOEL of 0.17(H) 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: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

12 . ECOLOGICAL INFORMATION

Ecotoxicity: Slightly toxic to birds.**Aquatic toxicity:** Slightly toxic to fish.**Persistence and Degradability:** No information available**Bioaccumulative Potential:** No information available**Mobility in Soil:**

Ethephon has low to moderate mobility in soils and potential for contamination of groundwater appears to be low to moderate. In soil ethephon rapidly degrades.

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**

UN1760

Proper Shipping Name**ADG**

1760 CORROSIVE LIQUID, N.O.S. (2-chloroethylphosphonic acid)

IMDG, IATA

CORROSIVE LIQUID, N.O.S. (2-chloroethylphosphonic acid)

Dangerous Goods Class**ADG Class:**

8 (C9) Corrosive substances.

IMDG Class:

8 Corrosive substances.

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Packing Group: ADG, IMDG, IATA	III
Marine pollutant:	No
EMS Number:	F-A,S-B
Hazchem Code:	2X
Special Provisions:	223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Packagings & IBCs - Special Packing Provisions:	Not applicable
Portable Tanks & Bulk Containers - Instructions:	T7
Portable Tanks & Bulk Containers - Special Provisions:	TP1, TP28

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

Creation Date: 07.05.2015**Last Revision of MSDS:** 17.08.2009**Prepared by:** MSDS.COM.AU Pty Ltdwww.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
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 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)

Data compared to the previous version altered: New GHS format

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 - December 2011"

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