



## MATERIAL SAFETY DATA SHEET

### TITAN PROPYZAMIDE 500SC HERBICIDE

#### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Product Name</b>        | Titan Propyzamide 500SC Herbicide     |
| <b>Product Code</b>        | -                                     |
| <b>Other Names</b>         | -                                     |
| <b>Product Use</b>         | Agricultural Herbicide                |
| <b>Company Name</b>        | Titan Ag Pty Ltd                      |
| <b>Address</b>             | 3/14 Narabang Way<br>Belrose NSW 2085 |
| <b>Telephone Number</b>    | 02 9986 2943                          |
| <b>Emergency Telephone</b> | 02 9986 2943                          |

#### 2. HAZARDS IDENTIFICATION

##### HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS.

Classified as hazardous according to the criteria of Safe Work Australia.

|                       |  |
|-----------------------|--|
| <b>Hazards</b>        | Xn – Harmful<br>N - Dangerous for the Environment  |
| <b>Risk Phrases</b>   | R40 - Limited evidence of a carcinogenic effect.<br>R50/53 – Very toxic to aquatic organisms. / May cause long-term adverse effects in the aquatic environment.  |
| <b>Safety Phrases</b> | S2 - Keep out of reach of children.<br>S36/37 - Wear suitable protective clothing and gloves.<br>S60 - This material and its container must be disposed of as hazardous waste.<br>S61 - Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets. |

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| <b>Ingredient (common name)</b>              | <b>CAS Number</b> | <b>Proportion</b> |
|--|-------------------|-------------------|
| Propyzamide                                  | 23950-58-5        | 50%               |
| Ethylene glycol                              | 107-21-1          | 4.2%              |
| Other ingredients deemed not to be hazardous | Proprietary       | <1%               |
| Water  | 7732-18-5         | To 100%           |

#### 4. FIRST AID MEASURES

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist. |
|-------------------|---|



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|                  |  |
|------------------|--|
| <b>Ingestion</b> | Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention.   |
| <b>Eyes</b>      | If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. If irritation persists seek medical attention.   |
| <b>Skin</b>      | Remove contaminated clothing and wash affected area thoroughly with soap and water. If irritation persists seek medical attention. Launder protective clothing before storage or re-use. |

### 5. FIRE FIGHTING MEASURES

|  |  |
|--|--|
| <b>Suitable Extinguishing Media</b>      | For major fires call the Fire Brigade. Ensure that an escape path is available from any fire.<br>Use the extinguishing media suitable to the surrounding fire. |
| <b>Hazardous Combustion Products</b>     | Oxides of carbon and nitrogen compounds.   |
| <b>Firefighting Equipment</b>            | Recommended use of self contained breathing apparatus and full protective equipment.   |
| <b>Unusual Fire or Explosion Hazards</b> | If involved in fire, the product will not burn due to water content.<br>There is no risk of an explosion if it is involved in fire.                            |
| <b>Hazchem Code</b>                      | Not allocated.   |

### 6. ACCIDENTAL RELEASE MEASURES

|               |  |
|---------------|--|
| <b>Spills</b> | In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection.<br>Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Collect spilled material in sealable container for disposal. |
|---------------|--|

### 7. HANDLING AND STORAGE

|                 |   |
|-----------------|---|
| <b>Handling</b> | Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Provide adequate ventilation.   |
| <b>Storage</b>  | Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.<br>Store away from incompatible materials. |

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|   |   |
|---|---|
| <b>Exposure Standards (Safe Work Australia)</b> | <b>Ethylene glycol (particulate):</b><br>TWA: - ppm / 10 mg/m <sup>3</sup><br>STEL: - ppm / - mg/m <sup>3</sup> |
|---|---|

|                               |   |
|-------------------------------|---|
|                               | <b>Ethylene glycol (vapour):</b><br>TWA: 20 ppm / 52 mg/m <sup>3</sup><br>STEL: 40 ppm / 104 mg/m <sup>3</sup>  |
| <b>Engineering Controls</b>   | Local exhaust ventilation is recommended when vapours can be released in excess of established airborne exposure limits.  |
| <b>Respiratory Protection</b> | Usually, no respirator is necessary. If in doubt see Australian Standards AS/NZS 1715 and 1716 for more information.  |
| <b>Eye Protection</b>         | Protective glasses or goggles and face shield. See Australian Standards AS 1336 and AS/NZS 1337 for more information.   |
| <b>Skin Protection</b>        | Impervious elbow-length gloves and protective clothing. See Australian Standards AS 2161 and 2919 and AS/NZS 2210 for more information.   |
| <b>Hygienic Practices</b>     | 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. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                 |   |
|---------------------------------|---|
| <b>Appearance</b>               | Light brown viscous liquid              |
| <b>Odour</b>                    | Mild odour                              |
| <b>Solubility in water</b>      | Forms suspension in water.              |
| <b>Boiling Point</b>            | ~100°C @ 100kPa                         |
| <b>Freezing Point</b>           | Below 0°C                               |
| <b>Vapour Pressure</b>          | 2.37 kPa @ 20°C (water vapour pressure) |
| <b>Vapour Density (Air = 1)</b> | No information available                |
| <b>Specific Gravity</b>         | 1.1 – 1.2 @ 20°C                        |

## 10. STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Chemical Stability</b>                           | Stable under normal storage conditions.  |
| <b>Incompatible Materials</b>                       | Strong acids, strong bases and strong oxidising agents.  |
| <b>Hazardous Decomposition Products</b>             | This product is likely to decompose only after heating to dryness, followed by further strong heating.<br>Oxides of carbon and nitrogen compounds. |
| <b>Hazardous Polymerization Conditions to Avoid</b> | Will not occur.<br>Heat.   |

## 11. TOXICOLOGICAL INFORMATION

|                 |   |
|-----------------|---|
| <b>Toxicity</b> | <b>Propyzamide:</b><br>Oral LD <sub>50</sub> (rat) = 5620 - 8350 mg/kg<br>Dermal LD <sub>50</sub> (rat) > 3160 mg/kg<br>Inhalation LC <sub>50</sub> (rat) > 5 mg/L – 4 hour |
|                 | <b>Reproductive effects:</b> It is unlikely that propyzamide will have reproductive effects except at doses high enough to cause maternal toxicity.                         |

**Teratogenic effects:** It appears that propyzamide is not teratogenic.

**Mutagenic effects:** It appears that propyzamide is not mutagenic.

**Carcinogenic effects:** Propyzamide may have carcinogenic activity at sufficient doses.

**Target organs:** Target organs identified in animal studies include the liver, thyroid, and adrenal and pituitary glands.

**Ethylene glycol (particulate):**

Oral LD<sub>50</sub> (rat) = 4700 mg/kg

Oral LD<sub>Lo</sub> (human) = 786 mg/kg

Intraperitoneal LD<sub>50</sub> (mouse) = 5614 mg/kg

Harmful if swallowed. Eye irritant. Laboratory experiments have shown teratogenic effects.

**Routes of Exposure**

Inhalation, ingestion, eye and skin

**Acute Health Effects**

Inhalation: Can cause irritation to the respiratory tract.

Ingestion: Can cause irritation to the respiratory tract.

Eye: May cause eye irritation.

Skin: May cause skin irritation.

**Chronic Health Effects**

No information available.

**Existing Conditions**

No information available.

**Aggravated by Exposure**

**Carcinogenicity**

Propyzamide is classified as a carcinogen Category 3 by Safe Work Australia.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity and Mobility**

**Propyzamide:**

**Aquatic organisms:**

LC<sub>50</sub> (Bluegill sunfish) = 1100 mg/L -96 hours

LC<sub>50</sub> (Rainbow trout) = 72 mg/L -96 hours

LC<sub>50</sub> (Daphnia magna) = 5.6 mg/L -48 hours

Propyzamide may be moderately toxic to aquatic invertebrates.

**Bees:**

Non-toxic to honey bees.

**Birds:**

LD<sub>50</sub> (Japanese quail) = 8700 mg/kg

LD<sub>50</sub> (Mallard ducks) > 14000 mg/kg

Propyzamide is practically non-toxic to birds.

**Environmental fate:**

Propyzamide is moderately persistent in most soils, with a reported average field half-life of 60 day. In most soil types, there is very little movement, or leaching, of propyzamide into groundwater as it is nearly insoluble in water.



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### 13. DISPOSAL CONSIDERATIONS

|   |  |
|---|--|
| <b>Disposal methods and containers</b>                  | Instructions concerning the disposal of this product and its containers are given on the product label.<br>Dispose according to applicable local and state government regulations. |
| <b>Special precautions for landfill or incineration</b> | Please consult your state Land Waste Management Authority for more information   |

### 14. TRANSPORT INFORMATION

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

|                              |                |
|------------------------------|----------------|
| <b>UN Number</b>             | Not applicable |
| <b>Proper Shipping Name</b>  | Not applicable |
| <b>Dangerous Goods Class</b> | Not applicable |
| <b>Hazchem Code</b>          | Not applicable |
| <b>Packing Group</b>         | Not applicable |
| <b>Special Precautions</b>   | Not applicable |

**Classified as a dangerous good - SEA TRANSPORT – IMDG**

|                              |  |
|------------------------------|--|
| <b>UN Number</b>             | 3082   |
| <b>Proper Shipping Name</b>  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains propyzamide) |
| <b>Dangerous Goods Class</b> | 9  |
| <b>Hazchem Code</b>          | 2X   |
| <b>Packing Group</b>         | III  |
| <b>Special Precautions</b>   | Marine pollutant   |

### 15. REGULATORY INFORMATION

Propyzamide, ethylene glycol and water are listed in the Australian Inventory of Chemical Substances (AICS).

**SUSDP Classification: S5**

### 16. OTHER INFORMATION

|                              |   |
|------------------------------|---|
| <b>Last Revision of MSDS</b> | Rev 1.0 (13/04/2011)  |
| <b>Prepared by</b>           | MSDS.COM.AU Pty Ltd <a href="http://www.msds.com.au">www.msds.com.au</a>  |
| <b>Abbreviations Used</b>    | IARC: International Agency for Research on Cancer<br>ASCC: Australian Safety and Compensation Council<br>NTP: National Toxicology Program (U.S.)<br>OSHA: Occupational Safety and Health Administration (U.S.)<br>STEL: Short term exposure limit<br>TWA: Time weighted average |



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### Emergency Contacts

|  |                     |
|--|---------------------|
| <b>Titan Ag Pty Ltd</b>                    | <b>02 9986 2943</b> |
| <b>Titan Ag Pty Ltd – Emergency Number</b> | <b>02 9986 2943</b> |
| <b>Police and Fire Brigade</b>             | <b>000</b>          |
| <b>Poisons Information Centre</b>          | <b>13 11 26</b>     |

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Please read instructions / label before using product.

This MSDS is prepared in accord with the Safe Work Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]