

# SAFETY DATA SHEET

According to Safe Work Australia

Printing date 15.12.2015

Revision: 15.12.2015

## 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** TITAN AMINE 475 HERBICIDE**Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Agricultural herbicide**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.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



corrosion

Eye Dam. 1          H318 Causes serious eye damage.



Acute Tox. (Oral) 4    H302 Harmful if swallowed.

Skin Sens. 1          H317 May cause an allergic skin reaction.

STOT SE 3            H335 May cause respiratory irritation.

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

**Signal Word** Danger**Hazard Statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P261                  Avoid breathing 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.

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

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

P272                  Contaminated work clothing should not be allowed out of the workplace.

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).

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P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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:

94-75-7	2,4-D (ISO)	47.5%
	☠ Eye Dam. 1, H318; ☠ Acute Tox. (Oral) 4, H302; Skin Sens. 1, H317; STOT SE 3, H335; 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. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

#### Symptoms Caused by Exposure:

Inhalation: Excessive inhalation may cause coughing, burning, dizziness, and temporary loss of muscle coordination.

Skin Contact: Will cause irritation. May be absorbed through skin.

Eye Contact: Will cause severe irritation.

Ingestion: Harmful if swallowed. Swallowing large amounts may cause injury and results in headache, nausea, motor weakness and incoordination.

### 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 toxic fumes of hydrogen chloride or phosgene.

If involved in a fire, the product will not burn.

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.

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### 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.

### 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 in original container tightly closed when not in use. Protect from direct sunlight. Keep away from strong oxidising agents, bases and acids.

### 8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Exposure Standards:

#### 94-75-7 2,4-D (ISO)

NES	TWA: 10 mg/m <sup>3</sup>
	Sen

#### Engineering Controls:

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

#### Respiratory Protection:

Use approved vapour respirator with a type G cartridge 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.

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**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:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Clear brown
<b>Odour:</b>	Fish-like odour
<b>Odour Threshold:</b>	Not determined.
<b>pH-Value:</b>	Not determined.
<b>Melting point/Melting range:</b>	Undetermined.
<b>Initial Boiling Point/Boiling Range:</b>	Undetermined.
<b>Flash Point:</b>	Not applicable
<b>Flammability:</b>	Non flammable / combustible.
<b>Auto-ignition Temperature:</b>	
<b>Decomposition Temperature:</b>	Not determined.
<b>Explosion Limits:</b>	
<b>Lower:</b>	Not applicable
<b>Upper:</b>	Not applicable
<b>Vapour Pressure:</b>	2,4-D salts are non-volatile.
<b>Relative Density at 20 °C:</b>	1.207
<b>Vapour Density:</b>	Not determined.
<b>Evaporation Rate:</b>	Not determined.
<b>Solubility in Water:</b>	Soluble in water
<b>Partition Coefficient (n-octanol/water):</b>	Not determined.

## 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:** Direct sunlight.

**Incompatible Materials:** Oxidising agents, bases and acids.

**Hazardous Decomposition Products:** Toxic fumes of hydrogen chloride or phosgene.

## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****94-75-7 2,4-D (ISO)**

Oral	LD <sub>50</sub>	370 mg/kg (rat)
Dermal	LD <sub>50</sub>	1500 mg/kg (rat)

**Acute Health Effects**

**Inhalation:** May cause coughing, burning, dizziness, and temporary loss of muscle coordination.

**Skin:** May cause skin irritation. May be absorbed through skin.

**Eye:** Will cause severe irritation.

**Ingestion:**

Harmful if swallowed. Swallowing large amounts may cause injury and results in headache, nausea, motor weakness and incoordination.

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**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Causes serious eye damage.**Respiratory or Skin Sensitisation:**

Sensitisation possible through skin contact.

May cause an allergic skin reaction.

**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:** May cause respiratory irritation.**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 damage to the eyes.**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for 2,4-dichlorophenoxyacetic acid for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 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:**

2,4-D is slightly to moderately toxic to birds.

Moderate doses of 2,4-D severely impaired honeybees brood production.

**Aquatic toxicity:**

Some formulations of 2,4-D are highly toxic to fish while others are less so. Limited studies indicate a half-life of less than 2 days in fish and oysters

**Persistence and Degradability:** This product is biodegradable.**Bioaccumulative Potential:**

This product will not accumulate in the soil or water or cause long term problems.

**Mobility in Soil:**

2,4-D has low soil persistence. The half-life in soil is less than 7 days. Soil microbes are primarily responsible for its disappearance.

## 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** Not regulated**Proper Shipping Name** Not regulated

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**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated**Marine pollutant:** No

### 15 . REGULATORY INFORMATION

**Australian Inventory of Chemical Substances:**

94-75-7 | 2,4-D (ISO)

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

Poisons Schedule: 5

### 16 . OTHER INFORMATION

**Date of Preparation or Last Revision:** 15.12.2015**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)
**Abbreviations and acronyms:**

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)

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: 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)

**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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