

1 Identification

Product Name: TITAN PENDIMETHALIN 440 EC 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 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.

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



health hazard

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.



environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Skin Sensitisation 1 H317 May cause an allergic skin reaction.

Flammable Liquids 4 H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H317 May cause an allergic skin reaction.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from flames and hot surfaces. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P273 Avoid release to the environment.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water.

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P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P370+P378 In case of fire: Use to extinguish: CO₂, powder or water spray.
 P391 Collect spillage.
 P403+P235 Store in a well-ventilated place. Keep cool.
 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:**

| | | |
|-----------------|---|-----|
| CAS: 64742-94-5 | Solvent naphtha (petroleum), heavy arom. | 56% |
| | ☠ Aspiration Hazard 1, H304; Flammable Liquids 4, H227 | |
| CAS: 40487-42-1 | Pendimethalin (ISO) | 44% |
| | ☠ Aquatic Chronic 1, H410; ☠ Skin Sensitisation 1, H317 | |

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, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause drowsiness and dizziness.

Skin Contact: May cause an allergic skin reaction.

Eye Contact: May cause eye irritation, redness and watering.

Ingestion: May cause gastrointestinal irritation. May be fatal if swallowed and enters airways.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon and nitrogen, other nitrogen compounds, hydrogen cyanide and smoke.

Combustible liquid.

Closed containers may explode when exposed to extreme heat. 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.

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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. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

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. Use only non-sparking tools.

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.

Take precautionary measures against static discharge. 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, sparks, open flames, hot surfaces and direct sunlight. Keep away from strong oxidising agents.

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.

Skin Protection:

Rubber or PVC 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 black with yellow-orange tinge |
| Odour: | Solvent-like |
| Odour Threshold: | Not determined. |

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| | |
|---|--------------------------|
| pH-Value: | Not determined. |
| Melting point/freezing point: | <5 °C |
| Initial Boiling Point/Boiling Range: | 183 - 210 °C |
| Flash Point: | >62 °C |
| Flammability: | Combustible |
| Auto-ignition Temperature: | No information available |
| Decomposition Temperature: | No information available |
| Explosion Limits: | |
| Lower: | No information available |
| Upper: | No information available |
| Vapour Pressure: | No information available |
| Relative Density: | 1.05 |
| Vapour Density: | No information available |
| Evaporation Rate: | No information available |
| Solubility in Water: | Emulsifies into water. |
| Partition Coefficient (n-octanol/water): | No information available |
| Viscosity: | No information available |

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, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents.

Hazardous Decomposition Products:

Oxides of carbon and nitrogen, other nitrogen compounds, hydrogen cyanide and smoke.

11 Toxicological Information

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.

| | | |
|--------|------------------|----------------------|
| Oral | LD ₅₀ | 5,000 mg/kg (rat) |
| Dermal | LD ₅₀ | 2,000 mg/kg (rabbit) |

CAS: 40487-42-1 Pendimethalin (ISO)

| | | |
|------------|-----------------------|--------------------|
| Oral | LD ₅₀ | >5,000 mg/kg (rat) |
| Dermal | LD ₅₀ | >2,000 mg/kg (rat) |
| Inhalation | LC ₅₀ /4 h | >320 mg/l (rat) |

Acute Health Effects

Inhalation: May cause drowsiness and dizziness.

Skin: May cause an allergic skin reaction.

Eye: May cause eye irritation, redness and watering.

Ingestion: May cause gastrointestinal irritation. May be fatal if swallowed and enters airways.

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: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

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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: May be fatal if swallowed and enters airways.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for pendimethalin for a human is 0.1 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 12.5 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', 2020).

12 Ecological Information

Ecotoxicity:

Pendimethalin is nontoxic to bees.

Pendimethalin is slightly toxic to birds.

LD50 1421 mg/kg (Mallard duck)

LC50 8 day dietary 3149 mg/kg (Bobwhite quail)

LC50 8 day dietary >10900 mg/kg (Mallard duck)

Aquatic toxicity:

Very Toxic to aquatic life with long lasting effects.

CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.EC₅₀/48 h 12 mg/l (daphnia)EC₅₀/72 h 2.5 mg/l (skeletonema costatum)LC₅₀/96 h 45 mg/l (fathead minnow)**CAS: 40487-42-1 Pendimethalin (ISO)**LC₅₀/96 h 0.199 mg/l (bluegill)

0.138 mg/l (rainbow trout)

LC₅₀/48 h 0.28 mg/l (daphnia)**Persistence and Degradability:** Pendimethalin has a half-life in soil of approximately 40 days.**Bioaccumulative Potential:**

Pendimethalin has a BCF of 5100 in fish, indicating moderate potential for bioaccumulation.

Mobility in Soil: Pendimethalin is practically insoluble in water and will not leach into groundwater.**Other adverse effects:** No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

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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 |
| Dangerous Goods Class | Not regulated |
| Packing Group: | Not regulated |
| Marine pollutant: | Yes Symbol (fish and tree) |

15 Regulatory Information**Australian Inventory of Chemical Substances:**

CAS: 64742-94-5 Solvent naphtha (petroleum), heavy arom.

CAS: 40487-42-1 Pendimethalin (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:** 30.01.2020**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)

Flammable Liquids 4: Flammable liquids – Category 4

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Aspiration Hazard 1: Aspiration hazard – 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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