

1 Identification

Product Name: FLUROXYPYR 400 HERBICIDE by TITAN

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

Toxic To Reproduction 1A

H360 May damage fertility or the unborn child.

Aspiration Hazard 1

H304 May be fatal if swallowed and enters airways.



environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



Skin Corrosion/Irritation 2

H315 Causes skin irritation.

Serious Eye Damage/Irritation 2A

H319 Causes serious eye irritation.

STOT SE 3

H335 May cause respiratory irritation.

Flammable Liquids 4

H227 Combustible liquid.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

H335 May cause respiratory irritation.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P201 Obtain special instructions before use.

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P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from flames and hot surfaces. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
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+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P331	Do NOT induce vomiting.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use to extinguish: CO ₂ , powder or water spray.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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:

81406-37-3	Fluoroxypyr-meptyl(ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	40%
64742-94-5	Solvent naphtha (petroleum), heavy arom. ⚠ Aspiration Hazard 1, H304	31.6%
872-50-4	N-methyl-2-pyrrolidone ⚠ Toxic To Reproduction 1B, H360D; ⚠ Skin Corrosion/Irritation 2, H315; Serious Eye Damage/Irritation 2A, H319; STOT SE 3, H335; Flammable Liquids 4, H227	10%

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 if symptoms occur.

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Ingestion:

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Immediately rinse mouth with water. Give a glass of water. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause mild respiratory irritation, headaches and dizziness

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: May be fatal if swallowed and enters airways. May cause headaches and nausea.

5 Fire Fighting Measures

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

Specific Hazards Arising from the Chemical:

Decomposes on heating emitting toxic fumes including those of hydrogen chloride and phosgene.

This product is a combustible liquid class 1.

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.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved self-contained breathing apparatus and full protective clothing. 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 labelled container for disposal. Clean up all spills immediately.

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 in original container, tightly closed when not in use. Protect from direct sunlight, heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents.

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8 Exposure Controls and Personal Protection

Exposure Standards:

Oil mist:

TWA: 5 mg/m³**872-50-4 N-methyl-2-pyrrolidone**

NES	STEL: 309 mg/m ³ , 75 ppm TWA: 103 mg/m ³ , 25 ppm Sk
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Engineering Controls: Ensure adequate ventilation of the working area.**Respiratory Protection:**

Use 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 or rubber 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:	Amber
Odour:	Solvent odour
Odour Threshold:	No information available
pH-Value:	5 (1% solution)
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	~200 °C (solvent)
Flash Point:	105 °C (expected)
Flammability:	Combustible Liquid Class 1
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Relative Density:	1.136
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.
Partition Coefficient (n-octanol/water):	4.53 log POW

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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:

Decomposes on heating emitting toxic fumes including those of hydrogen chloride and phosgene.

11 Toxicological Information

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

81406-37-3 Fluoroxypyr-meptyl(ISO)

	LC ₅₀	>1.0 mg/L (rat)
Oral	LD ₅₀	>5000 (rat)
Dermal	LD ₅₀	>2000 mg/kg (rabbit)

872-50-4 N-methyl-2-pyrrolidone

Oral	LD ₅₀	3914 mg/kg (rat)
Dermal	LD ₅₀	8000 mg/kg (rabbit)

Acute Health Effects

Inhalation: May cause mild respiratory irritation.

Skin: May cause skin irritation.

Eye: May cause eye irritation.

Ingestion: 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: 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:

May damage fertility or the unborn child.

N-Methyl-2-pyrrolidone is classified by Safe Work Australia as Toxic to Reproduction Category 2.

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

Repeated or prolonged skin exposure may cause de-fatting of the skin and dermatitis.

Existing Conditions Aggravated by Exposure: No information available

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Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for fluroxypyr for a human is 0.2 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 20 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: Fluroxypyr is not toxic to bees or birds.

Aquatic toxicity:**81406-37-3 Fluoroxypyr-meptyl(ISO)**

EC ₀ /48 h	>100 mg/L (daphnia)
EC ₅₀ /96 h	>100 mg/L (green algae)
LC ₅₀ /96 h	>100 mg/L (golden orfe)
	>100 mg/L (rainbow trout)

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and Degradability: Product is not persistent. Half-life is less than 7 days.

Bioaccumulative Potential: No information available

Mobility in Soil: Moderately mobile in soil

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

Dangerous Goods Class Not regulated

Packing Group: Not regulated

15 Regulatory Information

Australian Inventory of Chemical Substances:

81406-37-3	Fluroxypyr-meptyl(ISO)
64742-94-5	Solvent naphtha (petroleum), heavy arom.
872-50-4	N-methyl-2-pyrrolidone

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

Poisons Schedule: 5

16 Other Information

Date of Preparation or Last Revision: 12.12.2017

Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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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 Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A

Toxic To Reproduction 1A: Reproductive toxicity – Category 1A

Toxic To Reproduction 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aspiration Hazard 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). 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”

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Titan Ag Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.