

1 Identification

Product Name: TITAN FLUAZIFOP EC 212

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 2 H361 Suspected of damaging fertility or the unborn child.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Flammable Liquids 4 H227 Combustible liquid.

Aquatic Acute 2 H401 Toxic to aquatic life.

Signal Word Warning

Hazard Statements

H227 Combustible liquid.

H315 Causes skin irritation.

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

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

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

Safety Data Sheet

according to WHS Regulations

Printing date 17.12.2019

Revision: 17.12.2019

Product Name: TITAN FLUAZIFOP EC 212

(Contd. of page 1)

- P321 Specific treatment (see on this label).
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P332+P313 If skin irritation 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: 9004-96-0	Glycols, polyethylene, monooleate ⚠ Skin Corrosion/Irritation 2, H315; Aquatic Acute 2, H401	10 - <30%
CAS: 79241-46-6	Fluazifop-P-butyl (ISO) ⚠ Toxic To Reproduction 2, H361; ⚠ Aquatic Chronic 1, H410	15%
CAS: 111-87-5	1-Octanol ⚠ Serious Eye Damage/Irritation 2, H319	<10%
CAS: 26264-06-2	Calcium dodecylbenzenesulfonate ⚠ Skin Corrosion/Irritation 2, H315	<10%

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. 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. Remove contact lenses, if present and easy to do. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: No adverse health effects expected.

Skin Contact: Causes skin irritation.

Eye Contact: May cause eye irritation.

Ingestion: No adverse health effects expected.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Water fog, alcohol resistant foam, dry chemical or carbon dioxide. Do not use full water jet as it may spread the fire.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include toxic and irritating vapours and dense black smoke.

Combustible liquid.

Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Printing date 17.12.2019

Revision: 17.12.2019

Product Name: TITAN FLUAZIFOP EC 212

(Contd. of page 2)

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 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. Decontaminate spill area with detergent and water.

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. Do not store for prolonged periods in direct sunlight.

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:

Use an 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:

Elbow-length 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.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Printing date 17.12.2019

Revision: 17.12.2019

Product Name: TITAN FLUAZIFOP EC 212

(Contd. of page 3)

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: Dark brown
Odour: Solvent
Odour Threshold: No information available
pH-Value at 25 °C: 6.9 (1%)
Melting point/freezing point: No information available
Initial Boiling Point/Boiling Range: Undetermined.

Flash Point: 84 °C (Closed Cup)
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
Density at 20 °C: 0.945 g/cm³

Vapour Density: No information available
Evaporation Rate: No information available

Solubility in Water: Dispersible
Partition Coefficient (n-octanol/water): No information available

Viscosity at 20 °C: 54.5 cSt

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: No further relevant information available.

Hazardous Decomposition Products: Toxic and irritating vapours and dense black smoke.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:**

Oral	LD ₅₀	2451 - 3680 mg/kg (rat)
Dermal	LD ₅₀	>2000 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	>5.24 mg/l (rat)

CAS: 111-87-5 1-Octanol

Oral	LD ₅₀	1,790 mg/kg (mouse)
------	------------------	---------------------

Acute Health Effects

Inhalation: No adverse health effects expected.

Skin: Causes skin irritation.

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Printing date 17.12.2019

Revision: 17.12.2019

Product Name: TITAN FLUAZIFOP EC 212

(Contd. of page 4)

Eye: May cause eye irritation.**Ingestion:** No adverse health effects expected.**Skin Corrosion / Irritation:** Causes skin irritation.**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:** Suspected of damaging fertility or the unborn child.**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:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for fluazifop-butyl for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.4 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', 2019).

12 Ecological Information

Ecotoxicity:

Non-toxic to soil dwelling organisms:

LC50 / 14 days >1000 mg/kg (Earthworms)

Non-toxic to bees:

LC50 >200 µg/kg

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

EC₅₀/48 h 20 mg/l (daphnia)LC₅₀/96 h 20 ppm (rainbow trout)**CAS: 26264-06-2 Calcium dodecylbenzenesulfonate**EC₅₀/48 h 2.5 mg/l (crustacea)EC₅₀/96 h 2.736 mg/l (algae)LC₅₀/96 h 1.67 mg/l (fish)**Persistence and Degradability:** Fluazifop is not persistent in soil or water.**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.**Mobility in Soil:** Fluazifop is immobile in soil.**Other adverse effects:** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Printing date 17.12.2019

Revision: 17.12.2019

Product Name: TITAN FLUAZIFOP EC 212

(Contd. of page 5)

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:

CAS: 9004-96-0	Glycols, polyethylene, monooleate
CAS: 111-87-5	1-Octanol
CAS: 26264-06-2	Calcium dodecylbenzenesulfonate

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

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 17.12.2019

Prepared by: MSDS.COM.AU Pty Ltd

www.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 percent

LD₅₀: 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 2: Serious eye damage/eye irritation – Category 2

Toxic To Reproduction 2: Reproductive toxicity – Category 2

Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

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. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. 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.