



Safety Data Sheet

according to WHS Regulations

Printing date 09.12.2019

Revision: 09.12.2019

1 Identification

Product Name: TITAN IMAZAMOX 30 + IMAZAPYR 15 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.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



environment

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

Aquatic Acute 2 H401 Toxic to aquatic life.

Signal Word Void

Hazard Statements

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.

P391 Collect spillage.

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: 114311-32-9	Imazamox ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	3.1%
CAS: 81334-34-1	Imazapyr ☠ Serious Eye Damage/Irritation 2A, H319; Aquatic Chronic 3, H412	1.4%
CAS: 2634-33-5	1,2-benzisothiazol-3(2H)-one ☠ Serious Eye Damage/Irritation 1, H318; ☠ Aquatic Acute 1, H400; ☠ Acute Toxicity (Oral) 4, H302; Skin Corrosion/Irritation 2, H315; Skin Sensitisation 1, H317	<0.05%

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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, 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. 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: No adverse health effects expected.

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 and ammonia.

This product is not flammable, but may burn or decompose in a fire.

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

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Recommended storage temperature: -10 - +40°C

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:

Chemical resistant 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.

Eye and Face Protection: Eye protection is not required under normal use conditions.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Yellow to amber
Odour:	Aliphatic
Odour Threshold:	No information available
pH-Value:	~ 5 - 7
Melting point/freezing point:	~ -14 °C
Initial Boiling Point/Boiling Range:	~100 °C
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Ignition Temperature	398 °C
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure at 20 °C:	~23.4 hPa
Density at 20 °C:	~1.08 g/cm ³
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Soluble
Partition Coefficient (n-octanol/water):	Not applicable
Viscosity at 20 °C:	~83 mPa.s

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: Extreme temperatures and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products: Oxides of carbon and nitrogen and ammonia.

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11 Toxicological Information

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

Oral	LD ₅₀	>5000 mg/kg (rat)
Dermal	LD ₅₀	>5000 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	>6.18 mg/l (rat)

CAS: 81334-34-1 Imazapyr

Oral	LD ₅₀	>2,000 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	>5.22 mg/l (rat)

CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one

Oral	LD ₅₀	1,020 mg/kg (rat)
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Acute Health Effects**Inhalation:** No adverse health effects expected.**Skin:** No adverse health effects expected.**Eye:** No adverse health effects expected.**Ingestion:** No adverse health effects expected.**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:** Sensitisation possible through skin contact.**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:**

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 imazamox for a human is 2.8 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 282 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

The ADI for imazapyr for a human is 2.5 mg/kg/day. This is based on the NOAEL of 250 mg/kg/day.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2019).

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

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CAS: 114311-32-9 Imazamox	
EC ₅₀	>100 mg/l (daphnia)
EC ₅₀ /72 h	29.1 mg/l (pseudokirchnerie Ila subcapitata)
LC ₅₀	>119 mg/l (lepomis macrochirus)
CAS: 81334-34-1 Imazapyr	
EC ₅₀	>100 mg/l (daphnia)
LC ₅₀	>100 mg/l (bluegill)
	>100 mg/l (rainbow trout)
CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one	
EC ₅₀ /48 h	3.7 mg/l (daphnia)
EC ₅₀ /72 h	0.37 mg/l (algae)
LC ₅₀ /96 h	0.169 ppm (rainbow trout)
LC ₅₀ /48 h	>10 mg/l (daphnia)

Persistence and Degradability: Not readily biodegradable.**Bioaccumulative Potential:**

Imaxamox BCF: <1

Imazapyr BCF: <1

Mobility in Soil: Product may be mobile in soil.**Other adverse effects:** No further relevant information available.

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**ADG** Not regulated**Proper Shipping Name****ADG** Not regulated**Dangerous Goods Class****ADG Class:** Not regulated**Packing Group:****ADG** Not regulated**Marine pollutant:** Symbol (fish and tree)

15 Regulatory Information

Australian Inventory of Chemical Substances:

CAS: 2634-33-5 | 1,2-benzisothiazol-3(2H)-one

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

Not Scheduled.

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16 Other Information

Date of Preparation or Last Revision: 09.12.2019**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

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)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

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

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

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

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

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

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

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term (Chronic). Category 3

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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