according to WHS Regulations

Print date: 23.04.2024 Revision date: 18.04.2024

1 Identification

Product Name: Titan Mepiquat 380 SL Cotton Growth Regulator

Other Means of Identification: Mixture
APVMA Approval Number: 93878/140769

Recommended Use of the Chemical and Restriction on Use:

For the management of fruiting and excessive vegetative growth in cotton.

Details of Manufacturer or Importer:

Titan Ag Pty Ltd Princes Street Marina Suite 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), IATA and IMDG/IMSBC.



Acute Toxicity (Oral) 4 H302 Harmful if swallowed.

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

Signal Word Warning

Hazard Statements

H302 Harmful if swallowed.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P264 Wash thoroughly after handling.

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

P273 Avoid release to the environment.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition and Information on Ingredients

CAS: 9003-11-6 Oxirane, methyl-, polymer with oxirane

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
	Mepiquat chloride	35-40%
	Acute Toxicity (Oral) 4, H302; Acute Toxicity (Dermal) 4, H312; Acute Toxicity (Inhalation) 4, H332; Aquatic Chronic 3, H412	
Non Hazardous Components:		

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<0.1%

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4 First Aid Measures

Inhalation: If inhaled, remove to fresh air. 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 irritation occurs.

Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention if feeling unwell.

Symptoms Caused by Exposure:

Inhalation: No adverse health effects expected.

Skin Contact: May cause skin irritation. Eye Contact: May cause eye irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

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 oxides of carbon, hydrogen chloride gas, and other chlorine compounds.

Product is not flammable.

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

Prevent run-off from fire fighting entering drains or water courses.

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 protective equipment. Keep unprotected persons away. Take care as spill may cause a slip hazard.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Inform respective authorities in case of seepage into water course or sewage system.

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 or mists. 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.

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Conditions for Safe Storage:

Store in a cool, dry and well ventilated area out of direct sunlight. Keep in original container, tightly closed when not in use. Keep away from strong acids, strong bases, and 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: Natural ventilation should be adequate under normal use conditions.

Respiratory Protection: Respiratory protection is not required under normal use conditions.

Skin Protection:

Protective 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:

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form: Liquid Colour: Red Odour: None

Odour Threshold:No information availablepH-Value:4.5-6.0 (~1 % aqueous mixture)

Melting point/freezing point:
Initial Boiling Point/Boiling Range:

No information available

~100 °C (at 100 kPa)

Flash Point: Not applicable Flammability (solid, gas): Not applicable

Auto-ignition Temperature: No information available Decomposition Temperature: No information available

Explosion Limits:

Lower:No information availableUpper:No information availableVapour Pressure:No information available

Relative Density: 1.04-1.06

Vapour Density:No information availableEvaporation Rate:No information available

Solubility in Water: Soluble

Partition Coefficient (n-octanol/water): No information available Viscosity:

No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: No dangerous reactions known under conditions of normal use.

Chemical Stability: Stable at ambient temperature and under normal conditions of storage and use.

Conditions to Avoid: Direct sunlight.

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

Hazardous Decomposition Products:

Oxides of carbon, hydrogen chloride gas, and other chlorine compounds.

11 Toxicological Information

Toxicity:

LD50/LC50 Values:			
CAS: 24307-26-4 Mepiquat chloride			
Oral	LD50	200 mg/kg (Rattus norvegicus (rat))	
Dermal	LD50	2,000 mg/kg (Rattus norvegicus (rat))	
Inhalation	LC50/4 h	>4.89 mg/l (Rattus norvegicus (rat))	

Acute Health Effects

Inhalation: No adverse health effects expected.

Skin: May cause skin irritation. **Eye:** May cause eye irritation.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

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:

Based on classification principles, the classification criteria are not met.

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 data associated with long term health effects.

Existing Conditions Aggravated by Exposure: No data available.

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for mepiquat for a human is 0.15 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 15 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', 2023).

12 Ecological Information

Ecotoxicity:

Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

CAS: 24307-26-4 Mepiquat chloride

EC50/72 h >1,000 mg/l (Algae)

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LC50/96 h 4.3 mg/l (Oncorhynchus mykiss (rainbow trout))

Persistence and Degradability: No data available on finished product.

Bioaccumulative Potential: No data available on finished product.

Mobility in Soil: No data available on finished product.

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 Not regulated **Proper Shipping Name** Not regulated **Dangerous Goods Class Not regulated Packing Group:** Not regulated

15 Regulatory Information

Australian Inventory of Industrial Chemicals: All ingredients are listed.

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

Poisons Schedule: 5

16 Other Information

Date of Preparation or Last Revision: 18.04.2024

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)

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

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 - July 2020".

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.