1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name:	**Sabakem Thidiazuron 500sc Flowable Cotton Defoliant**
Other means of identification	
Recommended use of the chemical and restrictions on use:	Cotton defoliant for use as described on the product label.
Supplier:	**Sabakem Pty Ltd**
Street address:	**Suite 809, Level 8, 2 Queen St** **Melbourne VIC 3000 Australia**
Telephone no.:	**03 9629 3979**
Website:	**www.sabakem.com**
Emergency telephone:	**Poisons Information Centre 13 11 26 (24 hours)**

2. HAZARDS IDENTIFICATION

Classification of the substance mixture:

This material is hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:
Acute toxicity (dermal) – Category 4
Acute toxicity (inhalation)– Category 4
Skin corrosion/irritation – Category 2
Eye damage/irritation – Category 2
STOT single exposure – Category 3

The following environment hazard categories fall outside the scope of the Workplace Health and Safety Regulations:
Aquatic acute toxicity – Category 1
Aquatic chronic toxicity – Category 1

SIGNAL WORD: WARNING

Hazard Statement(s):
H312: Harmful in contact with skin
H332: Harmful if inhaled
H315: Causes skin irritation
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s):
Prevention:
P261: Avoid breathing vapour or spray. Do not breathe mists.
P264: Wash contacted areas 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.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P332 + P313: If skin irritation occurs, get medical advice/attention.
P362 + P364: Take off contaminated clothing and wash before reuse.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P391: Collect spillage

Disposal:
P501: Dispose of contents/container as per container label, in accordance with local/state/territory government regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion (w/v)
Thidiazuron	51707-55-2	500 g/L
Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.		

4. FIRST AID MEASURES

Speed in treatment is essential. If poisoning occurs, contact a Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766 or a doctor. Have this SDS or the label with you.

Inhalation: If inhaled, bring affected person to fresh air. If symptoms develop, contact a Poisons Information Centre or a doctor at once.

Skin contact: Remove contaminated clothing and wash with plenty of water and soap. If symptoms develop, seek medical attention.

Eye contact: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. Seek medical advice.

Ingestion: If swallowed, wash mouth with water and contact a Poisons Information Centre, or call a doctor. Do not induce vomiting unless told to do so by the Poisons Information Centre or doctor.

First aid facilities: Eyewash and normal washroom facilities.

Medical attention and special treatment: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing equipment:	Carbon dioxide, dry chemical or foam
Hazchem code:	•3Z (bulk only)
Specific hazards arising from the chemical:	Combustible liquid. The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Fire decomposition products from this product may be toxic if inhaled.
Special protective equipment and precautions for fire-fighters:	In case of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and chemical-protective clothing. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately. Do not allow contaminated water to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/ Environmental precautions:	In the event of a spill, prevent spillage from entering drains or water courses with absorbent material and call emergency services.
Personal precautions/ Protective equipment:	Wear protective clothing. It is good practice to wear impermeable gloves when handling chemical products.
Methods and materials for containment and cleaning up:	Contain - prevent run off into drains and waterways. For minor spills, clean up, rinsing to sewer and put empty container in garbage.

7. HANDLING AND STORAGE

Precautions for safe handling:	Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Refer to Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under 'Storage' should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
Conditions for safe storage, including any incompatibilities:	Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under 'Incompatibilities' in Section 10. Check packaging - there may be further storage instructions on the label. Note that this product is GHS Flammable Class 4 and therefore, for Storage, meets the definition of Dangerous Goods. Consult your state's Dangerous Goods authority if you intend to store large quantities (tonnes) of such products.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure control measures: No value assigned for this specific material by Safe Work Australia.

The Acceptable Daily Intake (ADI) for Thidiazuron is set at 0.02 mg/kg/day. The corresponding NOEL is set at 2.5 mg/kg/day.

Engineering controls: Use in well-ventilated areas. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):

See container label safety directions. The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Observe good standards of hygiene and cleanliness. Always wash hands, arms and face thoroughly with soap and water before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment with detergent and warm water before storage or re-use.

Respiratory protection: If engineering controls are not effective in controlling airborne exposure, then an approved respirator with a replaceable vapour/mist filter should be used. Consult AS/NZS 1715 and AS/NZS 1716 for further information.

Eye and face protection: Avoid contact with eyes. Safety glasses/goggles with side shield protection should be worn as a general precaution. Consult AS/NZS 1336 and AS/NZS 1337 for further information.

Skin protection: Full protective clothing, and elbow-length rubber or chemical resistant gloves must be worn when opening the container and using the product. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid suspension
Colour:	Beige to off white
Odour:	No odour
pH:	No available data
Specific gravity:	1.179
Melting point/Freezing point:	Below 0°C
Boiling point/range:	Approximately 100°C at 100kPa
Flash point:	No available data
Evaporation point:	No available data
Vapour pressure:	2.37 kPa at 20°C
Vapour density:	No available data
Solubility:	Completely soluble in water
Partition coefficient: n- octanol/water	No available data
Auto-ignition temperature:	No available data
Decomposition temperature:	No available data
Viscosity:	No available data

10. STABILITY AND REACTIVITY

Reactivity: No known reactivity hazards associated with this product, under normal conditions of use.

Chemical stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Heat, sparks, open flames and other sources of ignition. Do not store in direct sunlight.

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

Hazardous decomposition products:	Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgement, and unconsciousness followed by coma and death.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Harmful if inhaled. Harmful in contact with skin. Product can be absorbed through skin with resultant harmful systemic effects. Not considered harmful and does not cause toxicity via oral route, according to available information. **Toxicity data is available on the active constituent, Thidiazuron:** LD_{50} (Rat), Dermal = >1000mg/kg LC_{50} (Rat), Inhalation = >2.3 mg/L/4hr
Skin irritation:	Is considered a skin irritant according to available information.
Eye irritation:	Causes serious eye irritation according to available information.
Respiratory or skin sensitisation:	Not a skin sensitiser and not expected to be a respiratory sensitiser according to available information.
Germ cell mutagenicity:	Not suspected to cause genetic defects according to available data.
Carcinogenicity:	Not considered to be carcinogenic according to available data.
Reproductive toxicity:	Not considered to be toxic to reproduction according to available data.
STOT-single exposure:	May cause respiratory irritation. Inhalation of product mist or vapour can cause irritation of the nose, throat and respiratory system.
STOT-repeated exposure:	Not expected to cause toxicity to a specific target organ according to available data.
Aspiration hazard:	Not expected to be an aspiration hazard according to available data.
Chronic health effects:	Not expected to cause chronic health effects according to available data.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Available information on this product indicates that this product is classified as an acute and chronic aquatic toxicant. **Toxicity data is available on the active constituent, Thidiazuron:** LC_{50} (fish) 96h = 1000 mg/L EC_{50} (Daphnia): 10 mg/L
Persistence/ Degradability:	No information available.
Bioaccumulative potential:	No information available.
Mobility in soil:	Strongly adsorbed by the soil. DT_{50} in soil is about 26-144 days (aerobic) and 28 days (anaerobic).

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Break, crush or puncture and dispose of empty containers in a local authority landfill. Triple rinse and bury rinsate and empty capsules in a local authority landfill. If no landfill is available, bury the containers below 0.5m in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product must not be burnt. Do NOT re-use containers for any other purpose.

14. TRANSPORT INFORMATION

Road and rail transport: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in;
(a) packagings that do not incorporate a receptacle exceeding 500 kg(L);
(b) or IBCs.

Marine transport: Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; MARINE POLLUTANT

UN Number:	3082
Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIDIAZURON)
Transport Hazard Class:	9
Packaging Group:	III
IMDG EMS Fire:	F – A
IMDG EMS Spill:	S - F
Environmental hazards:	Yes
Additional Information:	The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

Air transport: IATA provision SP A197: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported air in; packages that have inner packages (plastic bottles, glass bottles, plastic bags) of 5 L for UN3082 and 5 kg for UN3077 or less.

15. REGULATORY INFORMATION

Poison schedule (SUSMP): None

APVMA approval no.: 69162

AICIS: All the constituents of this material are either listed on the Australian Inventory of Industrial Chemicals (AIIC), not required due the nature of the chemical as they are excluded as an industrial chemical or have been assessed under the Industrial Chemicals Act 1989 as amended.

16. OTHER INFORMATION

General information: None

Issue number: 003

Issue date: 18 September 2024

In any event, the review and, if necessary, the re-issue of an SDS shall be no longer than 5 years after the last date of issue.

Reason(s) for issue: Compliance with Safework Australia Preparation of safety data sheets for hazardous chemicals Code of Practice JUNE 2023

Key abbreviations or acronyms used: ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)

AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS)
AIIC - Australian Inventory of Industrial Chemicals
APVMA – Agricultural Pesticides and Veterinary Medicines Australia
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
IARC - International Agency for Research on Cancer
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (July 2023)
STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.
SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons
SWA - Safe Work Australia, formerly ASCC and NOHSC
TGA – Therapeutic Goods Australia
TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.
WHS – Workplace Health and Safety

The physical values and properties described in this SDS are typical values based on scientific literature and material produced to date, and are believed to be reliable. The manufacturer, Sabakem Pte Ltd provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. The information is supplied upon the condition that the persons receiving information will make their own determination as to the suitability for their purposes prior to use of this product. Due care should be taken to ensure that the use of this product and its disposal is in compliance with all relevant Federal, State and Local Government regulations.

End of SDS