Section 1 - Identification of The Material and Supplier

Sabakem Pty Ltd **Phone: 03 9629 3979**
Suite 809, Level 8, 2 Queen St **www.sabakem.com**
Melbourne VIC 3000 AUSTRALIA **Emergency: 1800 033 111**

Chemical nature: Soluble concentrate containing glufosinate-ammonium
Trade Name: **Sabakem Glufosinate 400 Herbicide**
APVMA Code: **88062**
Product Use: Agricultural herbicide for use as described on the product label.
Creation Date: **September, 2019**
This version issued: **June, 2024** and is valid for 5 years from this date.
Emergency telephone: **Poisons Information Centre 13 11 26 (24 hours)**

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

ADG Classification:

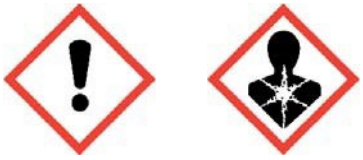
Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

Classification of the substance or mixture:

Acute Inhalation Toxicity Category 4

Reproductive Toxicity Category 1B

Specific Target Organ Toxicity - Repeated Exposure Category 2



GHS Signal word: DANGER

HAZARD STATEMENT(S):

H332: Harmful if inhaled.
H360: May damage fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENT(S):

PREVENTION

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe fumes, mists, vapours or spray.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P312: Call a POISON CENTRE or doctor if you feel unwell.
P314: Get medical advice or attention if you feel unwell.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313: If exposed or concerned: Get medical advice.

STORAGE

P405: Store locked up.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc. (% w/v)
Glufosinate-ammonium	77182-82-2	40.0

Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately if irritation persists. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

First Aid Facilities: Eyewash and normal washroom facilities. Safety deluge showers should, if practical, be provided near to where this product is being used.

Major Health Hazards: May impair fertility, harmful if inhaled or if swallowed. May irritate to eyes and skin and a possible risk of harm to the unborn child.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: 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. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Flammability Class: No data.

Suitable Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam or water fog.

Special Protective Equipment and Precautions for Fire Fighters: When fighting a major fire wear self-contained breathing apparatus and protective equipment.

Hazchem Code: None

Section 6 - Accidental Release Measures

Environmental precautions: In the event of a major spill, prevent spillage from entering drains or water courses with absorbent material.

Methods and materials for containment and cleaning up: Stop leak if safe to do so and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

Personal precautions, protective equipment and emergency procedures: Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self-contained breathing apparatus. Suitable materials for protective clothing include PVC, Nitrile. Use impermeable gloves with care. Eye/face protective equipment should comprise, as a minimum, protective goggles. Usually, no respirator is necessary when using this product however, if there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a suitable respirator. Refer to section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

If a significant quantity of material enters drains, advise emergency services.

Section 7 - Handling and Storage

Precautions for Safe Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check 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: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

Exposure Standards: Exposure limits have not been established by SWA for any of the significant ingredients in this product.

Engineering Controls: Ensure adequate ventilation of the working area.

Respiratory Protection: Ensure the work environment remains clean and that vapours and mists are minimised. If ventilation is inadequate, suitable respiratory protection should be worn, consult AS/NZS 1715 and AS/NZS 1716 for further information.

Eye and Face Protection: Eye protection such as protective glasses or goggles should be worn when this product is being used. See Australian/New Zealand Standard Industrial Eye Protection: AS1336 and AS/NZS 1337 for more information. Failure to protect your eyes may cause them harm. Emergency eye wash facilities should be provided in an area close to where this product is being used.

Skin Protection: Make sure that all skin areas are covered. Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. 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 Occupational Protective Clothing: AS/NZS 4501 and Occupational Protective Footwear: AS/NZS2210 for more information.

Section 9 - Physical and Chemical Properties

Physical Description & colour:	Liquid, no data regarding colour.
Odour:	No data.

Boiling Point:	Not available.
Flash Point:	No data.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	No data.
Water Solubility:	Soluble.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	No data.

Section 10 - Stability and Reactivity

Possibility of Hazardous Reactions: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf-life properties. This product will not undergo polymerisation reactions.

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: Strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Section 11 - Toxicological Information

Acute Toxicity: Product causes acute toxicity via inhalation route. Product is harmful if inhaled.
If inhaled product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. Believed to be cumulative by inhalation route.
Significant oral exposure is unlikely. However, if ingested this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort. Believed to be cumulative by ingestion.

Following is the acute toxicity for the active ingredient glufosinate ammonium:
Acute oral toxicity - LD50 (Rat) 1,500 – 2,000 mg/kg
Acute dermal toxicity - LD50 (Rabbit) > 4,000 mg/kg
Acute inhalation toxicity - LC50 (Rat, male) 1.26 mg/L

Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.
May cause skin irritation. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Serious Eye Damage/Irritation: Based on classification principles, the classification criteria are not met.
May cause eye irritation. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

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.
No significant ingredient is classified as carcinogenic by IARC.

Reproductive Toxicity: May damage fertility or the unborn child.
Glufosinate-ammonium is a SWA Class 2 Reproductive risk, may impair fertility.

Specific Target Organ Toxicity (STOT)—single exposure: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)—repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No data available.

Additional toxicological information:
The ADI for Glufosinate-ammonium is set at 0.02mg/kg/day & the corresponding NOEL is set at 2.1mg/kg/day (Data from Australian ADI List, March 2017). ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level.

Section 12 - Ecological Information

Ecotoxicity: Avoid contaminating waterways.
Glufosinate-ammonium is practically non-toxic to birds, earthworms, honeybees and other beneficial insects.
Glufosinate-ammonium is expected to be moderately toxic to wild animals.

Persistence and Degradability:
Glufosinate-ammonium is very soluble in water and is hydrolytically and photolytically stable. It is rapidly degraded in surface levels of soils and in water.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

Section 14 - Transport Information

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport: Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON- DANGEROUS GOODS.

Air Transport: Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON- DANGEROUS GOODS.

Section 15 - Regulatory Information

APVMA Approval no.: 88062

Poison schedule (SUSMP): Schedule 5

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.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Issue Date: June 2024

Reason(s) for issue: Five-year update and updated to latest GHS requirements.

Key abbreviations or acronyms:

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
CAS number - Chemical Abstracts Service Registry Number
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
Hazchem Code - Emergency action code of numbers and letters that provide information to emergency services especially firefighters.
IARC - International Agency for Research on Cancer
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 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.
UN Number - United Nations Number
WHS – Workplace Health and Safety

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” ((June 2023) and GHS Revision 7