

Page: 1 of 6

This version issued: March, 2024

Section 1 - Identification of The Material and Supplier

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Melbourne VIC 3000 AUSTRALIA Emergency: 1800 033 111

Chemical nature: Glyphosate is an amino acid, present in this product as the isopropylamine salt

Trade Name: Sabakem Glyphosate 450CT Herbicide

APVMA Code: 67384

Product Use: Agricultural herbicide for use as described on the product label.

Creation Date: August, 2013

This version issued: March, 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: Class 9: Environmentally Hazardous

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; packages 500kg(L) or less; or IBCs (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply, and the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See details below and in Section 14 of this SDS.

Classification of the substance or mixture:

Eye Damage Category 1



The following health hazard categories fall outside the scope of the Workplace Health and Safety Regulations

Chronic Aquatic Toxicity Category 2



GHS Signal word: DANGER

HAZARD STATEMENT(S):

H318 Causes serious eye damage. H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S):

PREVENTION

P280: Wear eye protection/ face protection. P273: Avoid release to the environment.

SAFETY DATA SHEET



Page: 2 of 6

This version issued: March, 2024

RESPONSE

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or a doctor.

P391: Collect spillage.

DISPOSAL

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

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc. (g/L)
Glyphosate as isopropylamine salt	1071-83-6	450*

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

This is a commercial product whose exact ratio of components may vary slightly.

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: Remove affected person to fresh air until recovered. If symptoms develop or persist, contact a Poisons Information Centre or a doctor.

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 20 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. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or 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.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product are likely to be irritating if inhaled.

Flammability Class: This product is not flammable and does not burn.

Suitable Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials. Extinguish fire with foam, dry powder, carbon dioxide or water spray. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Special Protective Equipment and Precautions for Fire Fighters: If a significant quantity of this product is involved in a fire, call the fire brigade. Recommended personal protective equipment is full fire kit and breathing apparatus.

Hazchem Code: •3Z (bulk transport only)

^{*} This value is the glyphosate content; the salt is present at a higher concentration.



Page: 3 of 6

This version issued: March, 2024

Section 6 - Accidental Release Measures

Spills & Disposal: In the event of a major spill, prevent spillage from entering drains or water courses. Stop leak if safe to do so and contain spill. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. 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 Protection: As a minimum, wear overalls, goggles and gloves. No special recommendations for clothing materials. Eye/face protective equipment should comprise as a minimum, protective goggles. 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 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.

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 this product.

Engineering Controls: Ensure adequate ventilation of the working area.

Respiratory Protection: Respiratory protective equipment is not needed under normal and intended conditions of product use. However, 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 product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used. See Australian/New Zealand Standard Industrial Eye Protection: AS1336 and AS/NZS 1337 for more information.

Skin Protection: 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: Clear blue viscous liquid.

Odour: Slight amine odour.

Boiling Point: Approximately 100°C at 100kPa.

SAFETY DATA SHEET



Page: 4 of 6

This version issued: March, 2024

Freezing/Melting Point: Below 0°C.

Volatiles: Water component.

Vapour Pressure: 2.37 kPa at 20°C (water vapour pressure).

Vapour Density: No data.

Specific Gravity: 1.2 approx

Water Solubility: Completely soluble in water.

pH: 4.5-5.0 (5% in water).

Volatility: No data.

Odour Threshold: No data.

Evaporation Rate: No data.

Coeff Oil/water Distribution: No data

Autoignition temp: Not applicable - does not burn.

Section 10 - Stability And Reactivity

Possibility of Hazardous Reactions: No significant decomposition products. Mildly corrosive to iron and some other metals. This product will not undergo polymerisation reactions.

Conditions to Avoid: 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, zinc, tin, aluminium and their alloys. Will corrode mild steel, galvanised steel and zinc.

Hazardous Decomposition Products: This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Oxides of phosphorus and other phosphorus compounds. Water. 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: Not harmful and does not cause toxicity via oral, dermal and inhalation routes according to available data.

Following is the acute toxicity estimate (ATE) calculated for the formulation:

Acute oral toxicity - LD50 (Rat) > 5,000 mg/kg; LD50 (Rabbit/ Mice) > 10,000 mg/kg

Acute dermal toxicity - LD50 (Rabbit) > 5,000 mg/kg

Acute inhalation toxicity - LC50 (Rat) > 5 -12mg/L

Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met. May cause skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

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: Rats given oral doses of up to 400 mg/kg/day did not show any signs of cancer, nor did dogs given oral doses of up to 500 mg/kg/day or mice fed glyphosate at doses of up to 4500 mg/kg/day.

Glyphosate is classified by IARC as Group 2A - Probably carcinogenic to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met. Laboratory studies show that glyphosate produces reproductive changes in test animals very rarely and then only at very high doses (over 150 mg/kg/day). It is unlikely that the compound would produce reproductive effects in humans.

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: Studies of glyphosate lasting up to 2 years, have been conducted with rats, dogs, mice, and rabbits, and with few exceptions no effects were observed. For example, in a chronic feeding study with rats, no



Page: 5 of 6

This version issued: March, 2024

toxic effects were observed in rats given doses as high as 400 mg/kg/day. Also, no toxic effects were observed in a chronic feeding study with dogs fed up to 500 mg/kg/day, the highest dose tested.

Additional toxicological information: The ADI for Glyphosate is set at 0.3mg/kg/day. The corresponding NOEL is set at 30mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2012.

Fate in humans and animals: Glyphosate is poorly absorbed from the digestive tract and is largely excreted unchanged by mammals. At 10 days after treatment, there were only minute amounts in the tissues of rats fed glyphosate for 3 weeks. Cows, chickens, and pigs fed small amounts of glyphosate had undetectable levels (less than 0.05 ppm) in muscle tissue and fat. Levels in milk and eggs were also undetectable (less than 0.025 ppm). Glyphosate has no significant potential to accumulate in animal tissue. There is no data to hand indicating any particular target organs.

Section 12 - Ecological Information

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Toxicity data on Glyphosate is available:

Acute Toxicity (Daphnia Magna) LC50: 780 mg/L - 48 hr

Acute Toxicity (Shrimp) LC50: 281 mg/L - 96 hr

Acute Toxicity (other organisms): LD50 (mallard duck and bobwhite quail) > 4500 mg/kg; LD50 (bee) > 100μg/bee Glyphosate is not toxic to birds or bees.

Persistence and Degradability: Half-life of Glyphosate in soil is typically 47 days. This product is biodegradable. **Bioaccumulative Potential:** No further relevant information available.

Mobility in Soil: Glyphosate is moderately persistent in soil, with an estimated average half-life of 47 days. Reported field half-lives range from 1 to 174 days. It is strongly adsorbed to most soils, even those with lower organic and clay content.

Breakdown in Surface Water: In water, glyphosate is strongly adsorbed to suspended organic and mineral matter and is broken down primarily by microorganisms. Its half-life in pond water ranges from 12 days to 10 weeks. **Breakdown in vegetation:** Glyphosate may be translocated throughout the plant, including to the roots. It is extensively metabolized by some plants, while remaining intact in others.

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

Australian Special Provisions; AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packaging's that do not incorporate a receptacle exceeding 500 Kg (L); or

(b) IBCs.

Marine Transport:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN Number: 3082

Proper Shipping Name or ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS

Technical Name: GLYPHOSATE)

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.



Page: 6 of 6

This version issued: March, 2024

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.

Section 15 - Regulatory Information

APVMA Approval no.: 67384

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: March 2024

Reason(s) for issue: Five-year update and updated the GHS hazard classification. Revised Primary SDS 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 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

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