

SAFETY DATA SHEET



eChem (Australia) Pty Ltd
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Page 1 of Total 6
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Emergency Contact:
1800 033 111

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: eChem Glyphosate 540 K Herbicide

Full Product Name: eChem Glyphosate 540 K Herbicide.
Other Names: Glyphosate. Group M Herbicide.
Use: A non-selective, systemic, liquid herbicide agricultural Herbicide
Company: eChem (Australia) Pty Ltd.
Address: Level 4, Lantos Place, 80 Stamford Road, Indooroopilly, Qld, 4068.
ACN/ABN: 089 133 095.
Telephone Number: 1300 781 649 **Fax Number:** 1300 781 650
Emergency Contact: 1800 033 111

SECTION 2 HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.**

Global Harmonisation Scheme (GHS) classification of the substance/mixture:

Skin Corrosion/Irritation: Category 1A to 1C.
Hazardous to the Aquatic Environment – Long-Term Hazard: Category 2.

Signal Word: DANGER.

Hazard statements:

H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P260 Do not breathe mist, vapours or spray.
P264 Wash hands, arms and face thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see Safety Directions on this label).
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

SECTION 2 HAZARDS IDENTIFICATION (Continued)**Storage:**

P405 Store locked up.

Disposal:

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

Pictogram:**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

CHEMICAL	CAS NUMBER	PROPORTION
Glyphosate present as the potassium salt	58509-83-4	540 g/L
Potassium Hydroxide	1310-58-3	< 5%
Other ingredients determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES**FIRST AID**

- Ingestion:** If swallowed do NOT induce vomiting. Give a glass of water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.
- Eye contact:** Immediately hold eyes open and flood with clean water. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.
- Skin contact:** Remove contaminated clothing. Wash skin with soap and water. If skin is irritated, seek medical advice.
- Inhalation:** Remove to fresh air and observe until recovered. If effects persist, seek medical advice.

Advice to Doctor: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is not flammable. Not combustible.

Extinguishing media: Choose extinguishing media to suit the burning material. If waterspray is used, contain all runoff. Contain all runoff.

Hazards from combustion products: Product is likely to decompose after heating to dryness and continued strong heating and will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Keep out unprotected persons and animals. Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) elbow-length PVC or nitrile gloves and face shield or goggles. Large spills should be dyked. Absorb spilled material with absorbent material such as sand, clay or cat litter. Vacuum, shovel or pump spilled material into an approved container and dispose of waste in compliance with relevant Local, State or Territory government regulations.

SECTION 6 ACCIDENTAL RELEASE MEASURES (Continued)

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of alkali detergent and water. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways. Keep material out of streams and sewers.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: Will irritate eyes and skin. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) elbow-length PVC or nitrile gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Conditions for safe Storage: Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight. This product is a Schedule 5 Poison (S5) and must be stored, transported and sold in accordance with the relevant Health Department regulations. Not classified as a Dangerous Good.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**National Exposure Standards:**

No exposure limits have been assigned by Safe Work Australia to the ingredients in this product.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that dust is minimised.

Personal Protective Equipment (PPE):

General: When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) elbow-length PVC or nitrile gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Personal Hygiene: Will irritate eyes and skin. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Clean water should be available for washing in case of eye or skin contamination. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Blue coloured liquid.
Odour:	Slight amine odour.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	Approximately 1.3.
Solubility in Water:	Soluble in water.
pH:	No data available.
Flammability:	Not flammable.
Poisons Schedule:	This product is a schedule 5 (S5) poison.
Formulation type:	Aqueous Concentrate (AC).

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable for a period of at least 2 years after manufacture.

Conditions to avoid: Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic lined containers or spray tanks since a highly flammable gas may be formed. Do not mix or store the product or spray solutions in galvanized steel or unlined steel (except stainless steel). Do not store for prolonged periods in direct sunlight. Avoid alkaline materials.

Incompatible materials: As above.

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 and smoke.

Hazardous Reactions: Will not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed: Low toxicity. Direct ingestion may produce gastro-intestinal discomfort, nausea, vomiting and diarrhoea. Ingestion of a large quantity of the undiluted product may result in hypotension and pulmonary oedema. Acute Oral LD₅₀ > 10,000 mg/kg.

Eye: The concentrate may cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.

Skin: This product may be irritating to the skin. Acute dermal LD₅₀ > 5,000 mg/kg.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation.

CHRONIC EFFECTS

Chronic toxicity: 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. 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.

Glyphosate does not appear to be teratogenic, mutagenic or carcinogenic.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: Glyphosate is not harmful to wild birds. The dietary LC₅₀ in both mallards and bobwhite quail is greater than 4500 ppm. Technical glyphosate acid is practically nontoxic to fish and may be slightly toxic to aquatic invertebrates. The reported 96-hour LC₅₀ values for other aquatic species include greater than 10 mg/L in Atlantic oysters, 934 mg/L in fiddler crab, and 281 mg/L in shrimp. The 48-hour LC₅₀ for glyphosate in Daphnia (water flea), an important food source for freshwater fish, is 780 mg/L. Some formulations may be more toxic to fish and aquatic species due to the surfactants used in the formulation. There is a very low potential for the compound to build up in the tissues of aquatic invertebrates or other aquatic organisms. Glyphosate is nontoxic to honeybees. Its oral and dermal LD₅₀ is greater than 0.1 mg/bee. The reported contact LC₅₀ values for earthworms in soil are greater than 5000 ppm.

Environmental Fate: 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. 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. Glyphosate may be translocated throughout the plant, including to the roots. It is extensively metabolized in some plants, while remaining intact in others.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require adequate skin protection - see section 8. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Ideally, the product should be used for its intended purpose. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

SECTION 14 TRANSPORT INFORMATION

Transport: This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail. This product not classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 80222.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xi: Irritant.

This product is not classified as a Dangerous Good.

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16 OTHER INFORMATION

Issue Date: 19 December 2015. Valid for 5 years, till 19 December 2020. (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Ataxia: Inability to control the coordinate movements of the muscles.

Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Mutagenic: Able to produce a mutation (a change in the genetic material of cells).

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus, that is causing birth defects.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

SECTION 16 OTHER INFORMATION (Continued)

References

1. "Search Hazardous Substances". Safe Work Australia HSIS website. (2015).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

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 should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End SDS.