

SAFETY DATA SHEET



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Emergency Contact:
1800 033 111

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **eChem Clopyralid 300 Herbicide**

Full Product Name: eChem Clopyralid 300 Herbicide.
Other Names: Clopyralid. Group I Herbicide. Pyridine carboxylic acid.
Use: An agricultural Herbicide for control of certain weeds in crops.
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

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

Not classified as Hazardous according to the Globally Harmonized System (GHS) classification of the substance/mixture.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<i>CHEMICAL</i>	<i>CAS NUMBER</i>	<i>PROPORTION</i>
Clopyralid present as the triisopropanolamine salt	1702-17-6 [#]	300 g/L
Other ingredients (including water) determined not to be hazardous		Balance

[#] this CAS number is for clopyrald. No CAS number is available for the clopyralid present as the triisopropanolamine salt.

SECTION 4 FIRST AID MEASURES

FIRST AID

Ingestion: If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126. Wash mouth out with water and give water to drink.

Eye contact: Hold eyes open and flood with copious quantities of clean water until chemical is removed. If effects occur and persist, consult a physician, preferably an ophthalmologist.

Skin contact: Remove contaminated clothing. Wash skin with soap and water. Contaminated clothing should be laundered before reuse.

Inhalation: Remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice. Unlikely to be a route of exposure.

Advice to Doctor: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is not flammable.

Extinguishing media: Choose extinguishing media to suit the burning material. If waterspray is used, 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. Will not polymerise.

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. Evacuate personnel to a safe area.

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, elbow-length PVC gloves and goggles or face shield. 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 solution in accordance with the requirements of Local or State Waste Management Authorities. Keep material out of streams and sewers.

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.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: May irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale the spray mist. When preparing the spray, wear elbow-length PVC gloves and face shield. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield 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.

Personal Protective Equipment (PPE):

General: When preparing the spray, wear elbow-length PVC gloves and face shield. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

Personal Hygiene: May irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale the spray mist. Clean water should be available for washing in case of eye or skin contamination.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green or blue liquid.
Odour:	No odour.
Boiling point:	Approx 100-105°C.
Freezing point:	Approx 0°C.
Specific Gravity:	Approximately 1.1.
Solubility in Water:	Soluble in water.
pH:	6 - 8.
Flammability:	Not flammable.
Poisons Schedule:	This product is a schedule 5 (S5) poison.
Formulation type:	Soluble Liquid (SL).

SECTION 10 STABILITY AND REACTIVITY

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

Conditions to avoid: Do not store for prolonged periods in direct sunlight. Avoid alkaline materials.

Incompatible materials: Incompatible with strong oxidizing agents.

Hazardous Decomposition Products: Product is likely to decompose after heating to dryness and with continued strong heating will emit toxic fumes.

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 acute oral toxicity. Acute Oral LD₅₀ > 3000 mg/kg (rats) for similar formulation.

Eye: This product may be irritating to the eyes.

Skin: This product maybe slightly irritating to the skin. Acute dermal LD₅₀ > 2,000 mg/kg for similar formulation.

Inhaled: The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. Acute inhalation LC₅₀ > 1 mg/L/4 hours for clopyralid.

CHRONIC EFFECTS

In subchronic mouse studies, decreased body weights were observed in males and females. Following chronic exposure, effects in dogs included reductions in red blood cell parameters, increased liver weight (males), and vacuolated adrenal cortical cells (females). Additionally, skin lesions and clinical chemistry changes (decreased serum glucose, protein, and albumin) were observed at the highest dose tested. In the rat, epithelial hyperplasia, thickening of the limiting ridge of the stomach, and decreased body weight were observed following chronic exposure. There were no clinical indications of neurotoxicity or immunotoxicity in the subchronic or chronic toxicity studies.

No developmental toxicity was observed in the rat at doses that caused maternal mortality and decreased body weight gains. In the rabbit developmental toxicity study, decreased foetal body weights and hydrocephalus were observed at a dose that caused severe maternal toxicity including mortality, clinical signs of toxicity, decreased body weight gains, and gastric mucosal lesions. Reproductive toxicity was not observed in the rat, but mean pup weight reductions and relative liver weight increases were observed at doses that caused parental toxicity (decreased body weight/weight gain and food consumption and gastric lesions). The data indicates no reproductive or mutagenic effects.

There was no evidence of carcinogenic potential in the rat and mouse 2-year carcinogenicity studies. Further, there were no positive findings for mutagenicity or clastogenicity observed in a battery of

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

mutagenicity studies (including bacterial reverse gene mutation, in vitro and in vivo host-mediated assays in Salmonella and Saccharomyces, in vivo chromosomal aberrations, unscheduled DNA synthesis, and dominant lethal activity studies). Based on the results of these studies, EPA has determined that clopyralid is "not likely to be carcinogenic to humans".

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. The following is data for the active ingredient, clopyralid. LC₅₀ (96 hr) = 103.5 mg/L for rainbow trout. LC₅₀ (96 hr) = 125.4 mg/L for bluegill sunfish and EC₅₀ (48hr) = 225 mg/L. *Daphnia magna* LC₅₀ (48 hr) = 225 mg/L. Birds: slightly toxic to birds on an acute basis LD₅₀ = 1465 mg/kg, but practically non-toxic on a dietary basis LC₅₀ > 5000 mg/kg. Bees: Not toxic to bees LD₅₀ >100 µg/bee. Toxic to aquatic organisms - algae LC₅₀ = 6.9 mg/L.

Environmental Fate: Half-life in soil is typically 8 - 66 days. Rapid degradation in soil prevents significant downward movement under normal conditions. Based completely on information for clopyralid acid, Clopyralid is weakly sorbed (Mean K_{oc} ~ 5 mL/g) indicating potential for mobility. Degradation is retarded under cold conditions or very dry soils. Clopyralid degrades slowly in water/sediment systems (t_{1/2} = 143-182 days). Clopyralid has been known to persist in dead plants and compost, and has accumulated to phytotoxic levels in finished compost, in certain situations. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

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, break, crush, or puncture and 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.

Marine and Air Transport: 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. 70397.

This product is not classified as a Hazardous Substance under the criteria of Safe Work Australia.

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: 21 March 2016. Valid for 5 years, till 21 March 2021. (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.

Clastogenic: Giving rise to or inducing disruption or breakages of chromosomes.

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).

References

1. "Search Hazardous Substances". Safe Work Australia HSIS website. (2016).
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.