

1. Identification of Substance & Company

Product	
Product name	Hydrocotyle Lawn Weed Control
Product code	to be advised
HSNO approval	HSR100499
UN number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRICLOPYR BUTOXYETHYL ESTER 12%)
DG class	9
Packaging group	III
Hazchem code	3Z
Uses	Herbicide
Company Details	
Company	Amalgamated Hardware Merchants Ltd (AHM)
Address	8 Hautu Drive, PO Box 97162 Wiri, Manukau Manukau, 2241 New Zealand New Zealand
Telephone	+64 9 2511310
Fax	+64 9 2511311

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR100499), and is classified as follows:

Classes	Hazard Statements
6.1E (oral)	May be harmful if swallowed
6.3B	Causes mild skin irritation.
6.4A	Causes eye irritation.
6.5B	May cause an allergic skin reaction.
6.9B	May cause damage to organs
9.1A	Very toxic to aquatic life with long lasting effects.
9.2A	Very toxic to the soil environment.

SYMBOLS

WARNING



Other Classifications

There are no other Classifications that are known to apply.

Precautionary Statements

Keep out of reach of children.
 Read label before use.
 Wash hands thoroughly after handling.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/eye protection/face protection.
 Do not breathe vapours/spray.
 Do not eat, drink or smoke when using this product.
 Avoid release to the environment.
 IF exposed or concerned: Get medical advice/ attention.
 Collect spillage.
 Store locked up

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Concentration
Triclopyr butoxyethyl ester	64700-56-7	6.1D (oral), 6.4A, 6.5B (contact), 6.9B (oral), 9.1A (fish), 9.1A (algal), 9.1A (other), 9.1B (crustacean), 9.2A, 9.3C	12%
Diethylene glycol monoethyl ether	111-90-0	3.1D, 6.1E (oral), 6.3B, 6.4A	>60%
Ingredients not contributing to HSNO classes	mixture	NA	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Call a POISON CENTER or doctor/physician if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	There are no specific risks for fire/explosion for this chemical. It is classed as non-flammable.
Suitable extinguishing substances:	Carbon dioxide, extinguishing powder, foam.
Unsuitable extinguishing substances:	Unknown.
Products of combustion:	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
Protective equipment:	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	3Z

6. Accidental Release Measures

Containment	If greater than 100L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to stormwater.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust on concentrate. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Store locked up. Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Approved handler required if applied in a wide dispersive manner, or by a commercial contractor. Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	Triclopyr butoxyethyl ester Diethylene glycol monoethyl ether	data unavailable 25ppm*	data unavailable data unavailable

*- recommended by manufacturer.

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

Skin

Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Butyl Rubber or Nitrile gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge and particulate filter (dust/mist). If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	amber liquid
Odour	mild solvent like
pH	6-8 (1% emulsion)
Vapour pressure	not available
Viscosity	no data
Boiling point	not available
Volatile materials	not available
Vapour density	>1 (heavier than air)
Freezing / melting point	no data
Solubility	emulsifiable in water
Specific gravity / density	~1.05g/ml
Flash point	>93°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	Strong acids, alkalis, oxidising agents, chlorine compounds, ammonium nitrate.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon, oxides of nitrogen, hydrogen chloride, phosgene (traces)
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: Triclopyr butoxyethyl ester is slightly toxic to human health.

IF IN EYES: may cause eye irritation and redness.

IF ON SKIN: may cause mild skin irritation (redness). Triclopyr butoxyethyl ester may cause allergic reaction in sensitised individuals.

CHRONIC TOXICITY: long term exposure to triclopyr can cause changes in the liver and kidney.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Triclopyr butoxyethyl ester 803 mg/kg, Diethylene glycol monoethyl ether 3000mg/kg (guinea pig)
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of acute inhalation toxicity.
	Eye	The mixture is considered to be an eye irritant, Triclopyr butoxyethyl ester and diethylene glycol monoethyl ether are considered eye irritants.
	Skin	The mixture is considered to be a skin irritant, diethylene glycol monoethyl ether is considered a mild skin irritant.
Chronic	Sensitisation	The mixture is considered to be a contact sensitizer. Triclopyr butoxyethyl ester is classed as a skin sensitisier.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The mixture is considered to be a suspected target organ toxicant. Triclopyr butoxyethyl ester is classed by EPA as 6.9B (oral).
Aggravation of existing conditions		None known.

12. Ecological Data

Summary

This mixture is very ecotoxic in the aquatic and soil environment with long lasting effects. Do not apply to water. Do not allow run-off to reach drains, sewers or waterways.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is < 1 mg/L. Data considered includes: Triclopyr butoxyethyl ester 0.36mg/L (96hr, Bluegill Sunfish), 0.048mg/L (chronic, LOEC, 65days, rainbow trout), 0.1mgL (24hr, freshwater diatom Navicula pelliculosa), 0.46mg/L (96hr, Eastern oyster), 1.7mg/L (48hr, Daphnia magna).
	No data
Bioaccumulation	No data
	EPA has classified the mixture as highly ecotoxic to the soil environment, with a soil ecotoxicity value ≤ 1 mg/kg. Data considered includes: Triclopyr butoxyethyl ester soil: EC ₂₅ : 0.0129mg/kg soil (alfalfa), Soil DT 50 >30days.
Terrestrial vertebrate	EPA has not classified the mixture as ecotoxic to terrestrial vertebrates. Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral) for the mixture is >2,000 mg/kg. Data considered includes: Triclopyr butoxyethyl ester 803 mg/kg (rat), 735mg/kg (bobwhite quail), Diethylene glycol monoethyl ether 3000mg/kg (guinea pig).
	No evidence of toxicity towards terrestrial invertebrates.
Terrestrial invertebrate	herbicide
Biocidal	
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	3082	Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRICLOPYR BUTOXETHYL ESTER 12%)
Class(es) Precautions:	9 Marine Pollutant	Packing group: Hazchem code:	III 3Z

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR100499.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 100L is stored.
Approved handler	Required if applied in a wide dispersive manner, or by a commercial contractor.
Tracking	Not required.
Bunding & secondary containment	Required if > 100L is stored.
Signage	Required if > 100L is stored.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.
Additional controls	The substance must not be applied onto or into water. Requirements for keeping records of use.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	Approval HSR100499, OCP1004 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
DT₅₀	Time (days) for 50% reduction in concentration.
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Agency (previously known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) http://www.epa.govt.nz/hs/compliance/chemicals.html , for specific chemicals.
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2013	The NZ Workplace Exposure Standards Effective from 2013, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .

Other References: Suppliers SDS

Review

Date	Reason for review
April 2016	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

