1. Identification of Substance & Company

Product	
Product name	Weedout™ Advanced Weed Killer
Product code	NA
HSNO approval	HSR101010
UN number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (GLYPHOSATE ISOPROPYLAMINE 49%)
DG class	9
Packaging group	III
Hazchem code	3Z
Uses	Herbicide

Company Details		
Company	**Amalgamated Hardware Merchants Ltd (AHM)**	
Address	8 Hautu Drive, Wiri, Manukau, New Zealand	PO Box 97162 Manukau 2241 New Zealand
Telephone	+64 9 2511310	
Faxl	+64 9 2511311	

Emergency Telephone Number: 0800 764 766

2. Hazard Identification

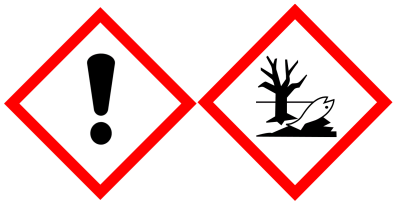
Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR101010), and is classified as follows:

Classes	Hazard Statements
6.3B	H316 - Causes mild skin irritation.
6.4A	H320 - Causes eye irritation.
9.1B	H411 - Toxic to aquatic life with long lasting effects.

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P103 - Read label before use.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/eye protection.
P273 - Avoid release to the environment.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P391 - Collect spillage.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Class for ingredient(s)	Conc (%)
Glyphosate isopropylamine	38641-94-0	9.1B (algal), 9.1D (fish)	49%
Polyoxyethylene modified trisiloxane	proprietary	Not available	10-30%
ingredients not contributing to HSNO classes	mixture	Not available	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 harmed 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 recommended. Accessible eyewash is recommended.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact Wash affected area with soap and water. If skin irritation occurs: Get medical attention. Wash contaminated clothing.

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 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: Wear self contained breathing apparatus. Contain run-off.

Hazchem code: 3Z

6. Accidental Release Measures

Containment If greater than 1000L 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.
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 additional 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	Spillage may be slippery. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. Storage & Handling

Storage	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	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Approved handlers not required unless applied onto and into water and where that water may leave the application area. This product should only be mixed, contained in or sprayed by, equipment made from stainless steel, fibreglass, plastic, aluminium, brass or copper. A highly flammable gas (hydrogen) may be formed from the contact of this product with galvanised or unlined steel. All spray equipment, including pumps, spray tanks, lines and nozzles should be thoroughly washed with water after each day of spraying.

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 3mg/m^3 for respirable particulates and 10mg/m^3 for inhalable particulates when limits have not otherwise been established.

	Ingredient	WES-TWA*	WES-STEL*
NZ Workplace Exposure Stds (2016)	Glyphosate isopropylamine	data unavailable	data unavailable
	Polyoxyethylene modified trisiloxane	data unavailable	data unavailable

* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

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 at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely, e.g. when mixing or applying the product.
Skin	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Overalls, boots and gloves (e.g. rubber, nitrile) are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory	A respirator when airborne concentrations approach the WES (section 8), e.g. when spraying. Use a respirator with an organic cartridge and particulate filter. 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	green liquid
Odour	faint amine or odourless
pH	4-7
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	1.20g/ml (approx)
Flash point	will not flash
Danger of explosion	not explosive

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, strong alkalis. Steel, galvanised steel.
Substance Specific Incompatibility	none known
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: Burning sensation in throat and chest, nausea, vomiting, diarrhoea.
IF IN EYES: Irritation may occur.
IF ON SKIN: mild skin irritation may occur.
IF INHALED: respiratory irritation may occur.

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: Glyphosate isopropylamine: 3800mg/kg (rat)
	Dermal	Using LD_{50}'s for ingredients, the calculated LD_{50} (dermal, rat) for the mixture is >5000 mg/kg. Data considered includes: Glyphosate isopropylamine >2000mg/kg (rat)
	Inhaled	Using LC_{50}'s for ingredients, the calculated LC_{50} (inhalation, rat) for the mixture is >5mg/L. Data considered includes: Glyphosate isopropylamine >5mg/L.
	Eye	The mixture is considered to be an eye irritant by EPA.
	Skin	The mixture is considered to be a mild skin irritant by EPA.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered by EPA to be a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered by EPA to be a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered by EPA to be a carcinogen.
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered by EPA to be a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	No ingredient present at concentrations > 1% is considered by EPA to be a target organ toxicant.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is considered to be toxic in the aquatic environment. It is designed to be very toxic to plant species (herbicide). It is non toxic to bees.

Supporting Data

Aquatic	Using EC_{50}'s for ingredients, the calculated EC_{50} for the mixture is between 1 mg/L and 10 mg/L. Data considered includes: Glyphosate isopropylamine Algae: Acute: 1.2mg/L (96hr, Skeletonema costatum (diatom)). Chronic: EC_{50} 0.77ppm (7 days, Marine diatom), Fish: Acute: 45mg/L (96hr, Bluegill sunfish), Chronic: NOEC 52mg/L (Salmo gairdnerii)
Bioaccumulation	LogP = <-3.2 (low)
Degradability	Biodegradable. DT_{50} (soil) 12 days (typical)
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	EPA has not classified the mixture as ecotoxic to terrestrial vertebrates. See acute toxicity.
Terrestrial invertebrate	EPA has not classified the mixture as ecotoxic to terrestrial invertebrates. It is considered non toxic to bees.
Biocidal	no data
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. (GLYPHOSATE ISOPROPYLAMINE 49%)
Class(es)	9	**Packing group:**	III
Precautions:	Ecotoxic.	**Hazchem code:**	3Z

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR101010.

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 > 10L.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 1000L is stored.
Approved handler	Approved handlers are only required in circumstances where this substance is applied onto or into water, where the water has the potential to leave the place containing the application area.
Tracking	Not required.
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 1000L 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. A maximum application rate is set for this substance. This substance must not be applied at rates exceeding 7.5 kg glyphosate per hectare. The concentration of formaldehyde in the glyphosate component of this substance must not exceed 1.3 g/kg. The concentration of N-nitroso-N-phosphonomethylglycine in the glyphosate component of this substance must not exceed 1.0 mg/kg

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 and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

All aspects of storage, handling use, disposal and record keeping must be in accordance with NZS 8409:2004 “Management of Agrichemicals”.

16. Other Information

Abbreviations

Approval Code	Approval HSR101010, 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.
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
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
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	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)
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
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 during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
WES 2016	The NZ Workplace Exposure Standards Effective from 2016, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz.
WES 2002	Workplace Exposure Standards published by the Occupational Safety and Health Service, Department of Labour, January 2002, ISBN 0-477-03660-0. These are the WES referred to under the Group Standard (HSNO approval) and may constitute a PES.
Other References:	Suppliers SDS

Review

Date	**Reason for review**
February 2017	Not applicable – new SDS

Disclaimer