

1. Identification of Substance & Company

Product

Product name	Tango®
Product code	TNL3949
ACVM	P010270
HSNO approval	HSR101605
Approval description	TNL3949
UN number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Acetochlor)
DG class	9
Packaging group	III
Hazchem code	3Z
Uses	herbicide - see label

Company Details

Company:	Arxada NZ Limited
Address:	13-15 Hudson Rd Bell Block New Plymouth New Zealand
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Fax:	+64 6 755 1174
Website:	www.arxada.co.nz
Email:	office-newplymouth@arxada.com

Emergency Telephone Number: 0800CHEMCALL (0800 243 622)
International Emergency Phone: +64 4 917 9888

2. Hazard Identification

Approval

Application in progress. (HSNO, Approval NA, approval pending). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

GHS Classes

Skin irritant category 2
Skin sensitiser category 1
STOT* single exposure category 3
STOT* repeated exposure category 2
Acute aquatic category 1
Chronic aquatic category 1
Hazardous to soil organisms
Hazardous to Terrestrial vertebrates

Hazard Statements

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
H421 - Very toxic to the soil environment.
H433 - Harmful to terrestrial vertebrates.

*STOT – System Target Organ Toxicity

SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

Prevention	P103 - Read label before use. P260 - Do not breathe vapours/spray. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves/eye protection.
Response	P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P312 - Call a POISON CENTRE or doctor/physician if you feel unwell. P314 - Get medical advice/attention if you feel unwell. P391 - Collect spillage.
Storage	P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration
Acetochlor	34256-82-1	300g/L
Clomazone	81777-89-1	40.0g/L
Mixture of methylchloroisothiazolinone and methylisothiazolinone	55965-84-9	<0.01%
Ingredients not contributing to GHS classes	Proprietary	balance

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

4. First Aid

General Information

Arxada NZ Limited has an emergency contact phone number: 0800 243 622, +64 4 917 9888

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	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink.
Eye contact	IF IN EYES: 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	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.
Inhaled	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

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:	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 storm water.
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. 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	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. Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, ecotoxicity warning and name of contents.
Handling	Read label before use. 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 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds

Ingredient

WES-TWA

WES-STEL

No ingredient listed.

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. 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

General

Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to be inadequate.

Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin



Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile, neoprene or natural rubber gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use an organic vapour cartridge with a 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. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

Respiratory

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	tan brown suspension
Odour	not specified
pH	8.0-10.0
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	miscible in water
Specific gravity / density	1.09g/cm ³
Flash point	>105°C
Danger of explosion	no data
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	no data

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, oxidisers. Strong bases.
Substance Specific Incompatibility	None known
Hazardous decomposition products	Oxides of nitrogen and carbon. (thermal decomposition).
Hazardous reactions	None known

11. Toxicological Information

Summary

IF SWALLOWED: no acute effect anticipated.
IF IN EYES: may cause eye irritation.
IF ON SKIN: sensitised individuals may experience an allergic skin reaction. May cause
IF INHALED: may cause respiratory irritation.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is >2,000 mg/kg. Data considered includes: Acetochlor 1426 mg/kg bw, Clomazone 1369mg/kg (rat).
	Dermal	Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is >2,000 mg/kg. Data considered includes: Acetochlor 3667 mg/kg bw.
	Inhaled	Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h. Data considered includes: Acetochlor 3.85 mg/L, Clomazone 4.8mg/L (rat).
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
	Skin	The mixture is considered to be a skin irritant, because some of the ingredients (acetochlor) present are considered skin irritants in more concentrated form.
	Chronic Sensitisation	The mixture is considered to be a contact sensitizer, because some ingredients (Acetochlor, methylchloroisothiazolinone and methylisothiazolinone) present are known to be contact sensitizers.
Chronic	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered by EPA to be a carcinogen. Acetochlor is suspected to be a carcinogen in other jurisdictions (EU).
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Aggravation of existing conditions	The mixture is considered to be a suspected target organ toxicant, because at least one of the ingredients (Acetochlor) present in greater than 1% is suspected to be a target organ toxicant. None known.

12. Ecological Data

Summary

This mixture is considered very toxic in the aquatic environment with long lasting effects and hazardous to soil organisms.

Supporting Data

Aquatic	Data considered includes: Acetochlor Acute aquatic toxicity: LC ₅₀ : 0.36mg/L (96h, Rainbow trout), EC ₅₀ : 8.2mg/L (48h, Daphnia magna, EC ₅₀ : 0.0034mg/L (96h, Marine diatom (Skeletonema costatum)). Chronic aquatic toxicity:NOEC: 0.45mg/L (36days, Pimephales promelas), 0.0221mg/L (21 days, Daphnia magna), 0.00012 mg/l (14 days, Duckweed) Clomazone Acute: LC ₅₀ : 5.2mg/L (48hr, Daphnia), EC ₅₀ : 2.10mg/L (48hr, Algae), Chronic: NOEL 2.2mg/L (21 days, Daphnia magna)
Bioaccumulation	Acetochlor is not considered bioaccumulative. BCF (aquatic species): 43
Degradability	No data
Soil	Acetochlor is considered hazardous to soil organisms.
Terrestrial vertebrate	The Acute Toxicity Estimate (ATE) (oral) for the mixture is >2,000 mg/kg. See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data

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 Hazardous Substances (Disposal) Notice 2017 and 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	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Triple rinse empty container placing rinse water in the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot or crush and bury in an approved landfill.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

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 (Acetochlor)
Class(es)	9	Packing group:	III
Precautions:	Marine pollutant	Hazchem code:	3Z
IMDG			
UN number:	3082	Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Acetochlor)
Class(es)	9	Packing group:	III
Precautions:	Marine pollutant	EmS	F-A, S-F
IATA			
UN number:	3082	Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Acetochlor)
Class(es)	9	Packing group:	III
Precautions:	Marine pollutant		

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR101605.

Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017 and the variation as set out in the approval HSR101605.
Emergency plan	Required if > 100L is stored.
Certified handler	To be confirmed.
Tracking	Records of use must be kept in accordance with the current Health and Safety at Work (Hazardous Substances) Regulations.
Bunding & secondary containment	Required if > 100L is stored.
Signage	Required if > 100L is stored.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.
Use Restrictions	The substance must be applied by ground-based methods only. The substance must not be applied when wind speeds are less than 3 km/h or more than 20 km/h as measured at the application site. The substance must be applied with minimum, coarse droplets, as defined by the American Society of Agricultural and Biological Engineers ASABE Standard (S572) or the British Crop Production Council guideline.

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.

ACVM approval: P010270

16. Other Information

Abbreviations

Approval Code	Approval NA, approval pending Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
EC₅₀	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)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
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)
NZIoC	New Zealand Inventory of Chemicals
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

STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
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).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz , approval document - EPA
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS

Review

Date	Reason for review
February 2022	Draft SDS for approval
September 2024	Approval, review of classification.

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 GHS 7 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 21 1040951**.

