

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

PRODUCT NAME: TRIFLAIN
OTHER NAME: Emulsifiable concentrate containing 480 g/L trifluralin
USE: Herbicide
SUPPLIER NAME: AGPRO NZ Ltd
SUPPLIER ADDRESS: 10 Polaris Place, East Tamaki, Auckland 2013
PO Box 58-963, Botany, Auckland 2163
SUPPLIER CONTACT: 09 273 3456 or freephone 0508 536 536
www.agpro.co.nz
POISON INFORMATION: National Poison Centre, 0800 POISON (0800 764 766) 24 hours
CHEMICAL EMERGENCY: 0800 CHEMCALL (0800 243 622) 24 hours

2. HAZARDS IDENTIFICATION

NEW ZEALAND: Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996

APPROVAL NUMBER: HSR000830

HAZARD CLASSIFICATIONS: Flammable liquid Category 4, Acute oral toxicity Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity, (repeated exposure), Category 1, Hazardous to soil organisms, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

PICTOGRAMS:



SIGNAL WORD: DANGER

HAZARD STATEMENTS: Combustible liquid.
Harmful if swallowed.
Causes serious eye irritation.
May cause an allergic skin reaction.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life and with long lasting effects.
Very toxic to soil organisms.

PREVENTION: Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Do not breathe mist/vapours/spray.
Wash hands after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection.
Avoid release to the environment.

RESPONSE: If medical advice is needed, have product container or label at hand.
Get medical advice if you feel unwell.
IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
Rinse mouth.
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.

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.

Collect spillage.

In case of fire: Stop leak if safe to do so.

STORAGE: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

DISPOSAL: Dispose of unwanted product and used packaging in compliance with local regulations.

TRANSPORT: TRIFLAIN is classified as Dangerous Goods Class 9 for Transport.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	% w/w
Trifluralin	1582-09-8	45 - 48*
Emulsifiers	Proprietary	10 - 30
Isobutyl alcohol	78-83-1	0.1 <1
Diethylene glycol monoethyl ether	111-90-0	30 - 60

* equivalent to 480 g/L trifluralin

4. FIRST - AID MEASURES

Contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor for advice. Have product label or SDS at hand.

Ingestion If swallowed, do NOT induce vomiting. Rinse mouth with water. Contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor for advice.

Inhalation Remove patient to fresh air. Keep in position comfortable for breathing. If breathing is shallow or has stopped ensure airway is clear, apply resuscitation and seek medical assistance immediately.

Skin contact Remove contaminated clothing and wash with soap and running water. If irritation or rash occurs, get medical advice.

Eye contact If in eyes flush with plenty of water holding eyelids open if necessary. Remove contact lenses if present, after a few minutes, then continue flushing with water. Get medical advice if irritation persists.

Advice to Doctor No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammability: Combustible liquid and vapour.

Hazardous Combustion Products: If involved in a fire, may evolve toxic/harmful compounds.

Extinguishing Media: Foam, carbon dioxide or dry chemical. Use water fog or fine water spray if no alternatives. Do not use water jet. Contain all run-off.

Protective Equipment: Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Spills and Disposal: Eliminate or isolate sources of ignition. No smoking. Wear personal protective equipment. Exclude non-essential people from the area. Stop leak if safe to do so. Contain spillage. Collect liquid into labelled containers than can be closed, for reuse or disposal. Absorb spills with inert material and place in a sealable labelled waste container. Dispose of waste safely in an approved landfill or hazardous waste facility.
- Environmental Precautions: Prevent from entering drains, waterways or sewers. If spill does enter waterways immediately contact local authority. TRIFLAIN is a herbicide and spillage on soil may damage crops.

7. HANDLING AND STORAGE

- Handling: Keep out of reach of children. Read label before use. Keep container tightly closed when not in use. Use only according to label.
- Wear personal protective equipment. Avoid contact with skin and eyes and inhalation of vapours or spray mist. Contaminated work clothing should not be allowed out of the workplace. Use outdoors or in well-ventilated area. Do not apply directly into or onto water. Take all reasonable steps to ensure the product does not cause any significant adverse effects to the environment beyond the application area.
- Written records of use are required if more than 3 kg (3L) applied within 24 hours in a place where the product is likely to enter air or water and leave the application area. TRIFLAIN must be under the control of a Qualified Handler during use.
- Storage: Signage, an emergency response plan and secondary containment are required when 100 L or more is on site. Store in original container tightly closed and in a secure well-ventilated area avoiding flames, hot surfaces, direct sunlight and away from foodstuffs, fertilisers and seeds.
- For guidance refer to the current version of NZS 8409 Management of Agrichemicals and the Health and Safety at Work (Hazardous Substances) Regulations 2017.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: Worksafe NZ (13th edition, April 2022)

<i>Ingredient</i>	<i>Exposure</i>	<i>Form</i>	<i>Ceiling</i>
No ingredients listed	-	-	-

- Protective Equipment: When opening the container, preparing to measure, load or when applying: wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.
- The following Standards provide general advice regarding safety clothing and equipment:
- Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.
- Engineering Controls: Handle outdoors or in a well-ventilated area. Use local exhaust ventilation, or other engineering controls as appropriate to conditions.
- Hygiene Precautions: Do not eat, drink or smoke while using this product. Remove protective clothing and wash hands and face before meals and after work. Wash protective clothing and equipment daily after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Orange liquid
- Odour: Characteristic solvent
- Odour threshold: No information available.
- pH: 5.5 – 7.5 (1% solution)

Melting point/freezing point:	Not available
Initial boiling point/range:	Not available
Flashpoint:	79°C
Flammability (solid, gas):	Not applicable
Upper/lower flammability limits:	Not available
Vapour pressure:	<0.1kPa @ 20°C
Vapour density:	Not available
Relative density:	ca 1.064
Solubilities:	Forms emulsion in water.
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	No information available
Decomposition temperature:	Not available
Kinematic viscosity:	Not available
Particle characteristics:	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable under normal storage conditions in original container for at least two years.
Conditions to avoid:	Ignition sources (heat, spark, open flames).
Incompatible substances or materials:	Strong acids, strong alkalis.
Hazardous polymerization:	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Harmful if swallowed
Aspiration hazard:	Not classified.
Respiratory irritation:	Not classified.
Skin corrosion/irritation:	Mildly irritating to skin.
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	Trifluralin is identified as causing an allergic skin reaction.
Germ cell mutagenicity:	Not classified.
Carcinogenicity:	Not classified. May be a possible human carcinogen.
Reproductive toxicity:	Not classified.
Specific organ toxicity:	Causes damage to organs or systems through prolonged or repeated exposure. Trifluralin is identified as affecting blood, liver and kidneys. May also cause respiratory depression and identified as endocrine disruptor.
Narcotic effects:	No components identified with narcotic effects.
Toxicological information:	<u>Trifluralin (active)</u> Oral, mouse LD ₅₀ 500mg/kg Dermal, rat LD ₅₀ 2000 mg/kg bw Inhalation, rat LC ₅₀ (4 hr) >1.252 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity:	TRIFLAIN is classified as being very toxic to aquatic life and with long-lasting effects. TRIFLAIN is also very toxic to the soil environment.
Ecotoxicological information:	<u>Trifluralin (active)</u> Fish: <i>Oncorhynchus mykiss</i> LC ₅₀ (96 h) 0.088 mg/L; Blue gill sunfish LC ₅₀ (96 h) 0.0084 mg/L Crustacean: <i>Daphnia magna</i> EC ₅₀ (48 h) 0.245 mg/L Algae: <i>Raphidocelis subcapitata</i> EC ₅₀ (72 hr) growth 0.0122 mg/L Aquatic plant: <i>Lemna gibba</i> EC ₅₀ (120 h) growth, 0.043 mg/L Diatom: <i>Navicula pellicosa</i> EC ₅₀ 0.015 mg/L Bird: <i>Colinus virginianus</i> LD ₅₀ >2250 mg/kg bw Earthworm: <i>Eisenia foetida</i> LC ₅₀ (14 d) >500 mg/kg Bee: <i>Apis mellifera</i> LD ₅₀ oral or contact >100 µg/bee
Persistence and degradability:	DT ₅₀ (typical) 133.7 days; DT ₅₀ (field) 170 days; persistent.
Potential to be bioaccumulative:	Identified as bioaccumulative.
Mobility in soil:	Trifluralin has low solubility in water (0.221 mg/L).
Other adverse effects:	No information available.
Environmental Exposure Limits (EEL):	Not applicable.

13. DISPOSAL CONSIDERATIONS

Product Disposal:	Dispose of product only by using according to label or dispose of at an approved landfill.
Container Disposal:	Ensure container is completely empty. Triple rinse with water add rinsate to the spray tank. Dispose of empty clean container to recycler for agricultural chemicals, otherwise crush and bury in an approved landfill. Do not use container for any other purpose.

14. TRANSPORT INFORMATION

UN Number:	3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (TRIFLURALIN 48%)
DG Class:	9
Packing Group:	III
Marine Pollutant:	Yes
HAZCHEM	3Z

Do not transport TRIFLAIN on a passenger services vehicle.

15. REGULATORY INFORMATION

New Zealand	Registered pursuant to the ACVM Act 1997, No. P9448 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000830 Emulsifiable concentrate containing 400 – 480 g/litre trifluralin (substance A) See www.epa.govt.nz for Controls and www.worksafe.govt.nz .
Qualifications	Qualified Handler
Tracking:	Not required
Safety Data Sheet:	Any quantity
Restricted to workplace only:	No
Quantity that must be secured when unattended:	Not applicable
Fire extinguishers	>500 L; 2 extinguishers required

Quantity for secondary containment and emergency response plan:	>100 L
Quantity for signage:	>100 L
Quantity for Location certificate	Not required
Records of use (3 kg or more applied to area within 24 hours)	Yes
Quantity that requires management in accordance with HSW HS Regulations	1000 L

16. OTHER INFORMATION

Version: 1.1

Issue Date: 15 June 2023

Reason for Issue: Supplier's contact details updated.

Replaces: Replaces version 1.0 dated August 2022.

References:

Supplier Safety Data Sheets

NZ EPA Approved hazardous substances databases.

Worksafe NZ Workplace Exposure Standards and Biological Exposure Indices

NZS 5433:2020 New Zealand Standard Transport of Dangerous Goods on Land

University of Hertfordshire Pesticides Properties Database (PPDB)

Abbreviations:

ACVM	Agricultural Chemicals and Veterinary Medicines Group
ADI	Acceptable Daily Intakes
BCF	Bioconcentration factor
CAS Number	Chemical Abstracts Service Registry Number
CCID	Chemical Classification Identification Database
EPA	Environmental Protection Authority
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
HSNO	Hazardous Substances and New Organisms
HS	Health and Safety
HSR	Hazardous Substances Register
IARC	International Agency for Research on Cancer
LC ₅₀	Median Lethal Concentration
LD ₅₀	Median Lethal Dose (50% population)
SDS	Safety Data Sheet
NOAEL	No Observable Adverse Effect Level
NOEL	No Observable Effect Level
NOS	Not otherwise specified
STEL	Short Term Exposure Limit
TWA	Time-Weighted Average
UN Number	United Nations Number

WES-STEL	Workplace exposure standards – Short-term exposure limit
WES-TWA	Workplace exposure standards – Time-weighted average

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

End of Safety Data Sheet.