



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Trisure**
Chemical Name of Active Ing: 2,6-dinitroaniline derivative
Product Use: Herbicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, Nelson
Telephone: +64 3 543 8275
Email: nzorders@adama.com

**Emergency Telephone: 0800 764 766 (National Poison Centre)
0800 734 607 (24hr Emergency Response)**

Date of SDS Preparation: 29 December 2021

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020

EPA Approval No: HSR000830

Pictograms



Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement
Flammable liquid Category 4	H227	Combustible liquid.
Acute oral toxicity Category 4	H302	Harmful if swallowed.
Eye irritation Category 2	H320	Causes eye irritation.
Skin sensitisation Category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity (repeated exposure) Category 1	H370	Causes damage to organs (blood and haematopoietic system) through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Category 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H421	Harmful to soil organisms.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames or hot surfaces and other ignition sources. No smoking.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid unintended release into the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P301 + P312 + P330	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs, get medical 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. If eye irritation persists, get medical attention.
P308 + P313	IF otherwise exposed or concerned: Get medical advice/ attention.
P362 +P364	Take off contaminated clothing and wash before re-use.
P370 + P378	In case of fire: Use water spray, foam, water fog for extinction.
P391	Collect spillage.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P235	Store in a well-ventilated place.

Disposal Code	Disposal Statement
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

Section 3. Composition / Information on Ingredients

Ingredients	Wt %	CAS NUMBER.
Trifluralin	48	1582-09-8
Liquid Hydrocarbon	46	Proprietary
Other non-hazardous ingredients	To bal	-

Section 4. First Aid Measures

Routes of Exposure:

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 attention.

If on Skin Remove contaminated clothing and wash before reuse. Wash away remainder with water and soap followed by a warm water rinse. If skin irritation occurs: Get medical advice/ attention.

If Swallowed If swallowed, do NOT induce vomiting. Wash out mouth thoroughly with water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTER or doctor/physician if needed.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Harmful if swallowed.
Skin: May cause an allergic skin reaction.
Eye: Causes eye irritation.
Chronic: Causes damage to organs (blood and haematopoietic system) through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Combustible liquid
Hazards from combustion products	Carbon dioxide, carbon monoxide, chlorides, nitrogen oxides.
Suitable Extinguishing media	Water spray, foam, water fog.
Precautions for firefighters and special protective clothing	Self-contained breathing apparatus and total protection required in enclosed areas.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Wear appropriate protective clothing. (see section 8). Evacuate all unnecessary personnel.

Environmental precautions

In the event of a major spill, prevent spillage from entering into drains and water courses.

Methods and material for containment and cleaning up

Collect and contain as much free liquid as possible. Absorb remainder in sand or other inert material. Place into a clean container and cover the container loosely for later disposal. Dispose as per Section 15.

Section 7. Handling and Storage

Precautions for Handling:

- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Avoid contact with skin and eyes.
- Do not breathe fumes, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid unintended release into the environment.
- Wear protective clothing as detailed in Section 8.
- Collect spillages

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a well-ventilated place.
- Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.
- As a substance with Ecotoxicity Classifications storage of Trisure must be carried out in such a manner as to prevent contamination of waterways. It is recommended that the New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed.

Section 8	Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA	STEL
	ppm mg/m3	ppm mg/m3

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). *The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Engineering Controls

Ventilation required.

Personal Protection Equipment

Eyes	Safety goggles or face shield.
Hands and Skin	Wear chemical resistant gloves, protective clothing and boots.
Respiratory	During spraying wear suitable respiratory equipment
General	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

Section 9	Physical and Chemical Properties
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Appearance	Orange liquid
Odour	Characteristic hydrocarbon odour
Odour Threshold	Not applicable
pH	6.0 – 8.0
Boiling Point	Not applicable
Melting Point	No specific data.
Flash Point	> 93 °C
Flammability	Combustible
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	Not applicable
Density	1.08 g/mL @ 25°C
Solubilities	Emulsifiable
Log P octanol	Not applicable
Auto-ignition Temperature	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Keep away from sources of sparks or ignition and protect from light.
Incompatible Materials	Avoid contact with strong bases and strong acids.
Hazardous Decomposition Products	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds and oxides of nitrogen's. Occasionally hydrogen cyanide gas.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Harmful if swallowed.
Skin	May cause an allergic skin reaction
Eye	Causes eye irritation.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure.

Common name: **Trifluralin**

Chronic toxicity:	NOEL (beagle dog): 18.75 mg/kg/day
Carcinogenicity:	2-year study (rat): 325 mg/kg/day
Mutagenicity:	Not mutagenic
Reproduction toxicity:	NOEL (rat): 225 mg/kg/day
Other information:	Teratogenicity – Does not appear to be teratogenic

Section 12. Ecotoxicological Information

HSNO Classification: Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms.

Ecotoxicity:	Fish			
	LC50 (96 hours)	rainbow trout	=	0.02 – 0.06mg/L
		bluegill sunfish	=	0.05 – 0.07mg/L
		channel catfish	=	1.4-3.4 mg/L
	Daphnia similis			
	LC50 (48 hours)		=	0.5-.06 mg/L

Common name: **Trifluralin**

Mobility:

Persistence/degradability: Moderate to high persistence in soil. Half-life time (t_{1/2}): 45 to 60 days to 6 to 8 months
Subject to degradation by soil microorganisms. May be decomposed by UV light or may volatilize.

Bioaccumulative potential: Found adsorbed to soil sediments and particulates in the water columns

Toxic to fish and aquatic organisms. Toxic to Earthworms. Non-toxic to Bees.

Section 13. Disposal Considerations

Disposal Method: Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers before puncturing and offering for recycling or landfill.



Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not burn product or container.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433



Road and Rail Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Trifluralin)

Air Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Trifluralin)

Marine Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Trifluralin)
Marine Pollutant:	No

Special Provisions:

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

This substance is hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020**EPA Approval Code:** HSR000830

HSNO Classification: 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 the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms.

HSW (HS) Regulations 2017	Trigger Quantity/Regulation
Certified Handlers	Not required
Signage Trigger Quantities (Schedule 3)	100 L
Fire Extinguishers (Schedule 4)	500L – 2x required
Emergency Response Plan (Schedule 5)	100 L
Secondary Containment (Schedule 5)	100 L
Tracking (Schedule 26)	Not required
Hazardous Property Controls Notice 2017	
HPC Notice Part 1	Hazardous Property Controls preliminary provisions
HPC Notice Part 3	Hazardous substances in a place other than a workplace
HPC Notice Part 4 Subpart A	Substances that are hazardous to the environment: Site and storage controls
HPC Notice Part 4 Subpart B	Use of substances that are hazardous to the environment
HPC Notice Part 4 Clause 47	Equipment for environmentally hazardous substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of ecotoxic pesticides and plant growth regulators
HPC Notice Part 4 Clause 52	Agrichemicals that are hazardous to the aquatic environment must not be applied to water
HPC Notice Part 4 Subpart C	Qualifications required for the application of substances that are hazardous to the environment
ACVM Act and Regulations	
Registered pursuant to the ACVM Act 1997, See www.foodsafety.govt.nz for registration controls	P009942

Glossary

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997.
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms Act 1996.
HSW	Health and Safety at Work Act 2015.
HSW (HS) Regulations 2017.	Health and Safety at Work (Hazardous Substances) Regulations 2017.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level.
WES	Workplace Exposure Limit.

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer:

This document has been issued by Adama New Zealand Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which is held by Adama New Zealand Ltd or has been obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. While Adama New Zealand Ltd have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Adama New Zealand Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS. The information herein is given in good faith, but no warranty, express or implied is made.

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