



Section 1: Identification: Product identifier and chemical identity

Product Identifier:	TRAILBLASTER HERBICIDE
Active Constituent:	224 g/L ACIFLUORFEN (present as the sodium salt)
Other Means of Identification:	Group G Herbicide. Grow Choice product code number: 740 10 AVPMA registered number: 70359/63272
Recommended Use:	For the selective control of certain broadleaf weeds and grasses in mung beans, peanuts, soybeans, green beans and seed crops of Siratro and Stylo as specified in the Directions for Use table.
Details of manufacturer or importer:	Grow Choice Pty Ltd ABN 36 161 264 884
Address:	113 Fitzroy Street TAMWORTH NSW 2340 AUSTRALIA
Website:	www.growchoice.com.au
Phone Number & Email:	(02) 6766 3979 - admin@growchoice.com.au
Emergency Phone Number:	In Case Of Emergency Dial 000
Poisons Information Centre:	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 http://www.chw.edu.au/poisons/contact.htm

Section 2: Hazards identification (cont. page 2)

Classified as HAZARDOUS in accordance with the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)] 3rd Edition and the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).	
Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)	
Considered non-dangerous for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)	
SUSMP Classification: S6	
Classification of the hazardous chemical:	Skin corrosion / irritation: Category 2 Serious eye damage / eye irritation: Category 2 / 2A Hazardous to the aquatic environment - short-term / chronic: Category 1
Signal word:	DANGER
Hazard statements:	H315 Causes skin irritation H319 Causes serious eye irritation. H410 Very toxic to aquatic life with long lasting effects
Precautionary Statements (General):	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.
Pictograms:	 
Precautionary Statements (Prevention):	P102 Keep out of reach of children. P262 Do not get in eyes, on skin, or on clothing. P264 Wash contacted areas thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing and eye or face protection.

Precautionary Statements (Storage):	P362	Take off contaminated clothing and wash before reuse
	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, present and easy to do. Continue rinsing.
	P332+P313	If skin irritation occurs: Get medical advice.
	P337+P313	If eye irritation persists: Get medical advice.
	P370+P378	Not combustible. Use extinguishing media suited to burning materials.
	P391	Collect spillage.
	P402+p404	Store in a dry place. Store in a closed container.
	P403+P235+P233	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Precautionary Statements (Disposal):	P405	Store locked up.
	P410	Protect from sunlight.
	P501	Dispose of contents and container in accordance with local, regional and national regulations.
Other Information:	Poisons Schedule S6	

Section 3: Composition and information on ingredients

Chemical ingredients: CAS number and other unique identifiers: Concentration of ingredients		
Component	CAS No	Proportion
Acifluorfen as the sodium salt	62476-59-9	224 g/L
Other ingredients, including water	(non-hazardous)	Balance

Section 4: First aid measures

In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist. Take this SDS and or DFU/Label with you or when calling the Poisons Information Centre.	
General Advice:	Those who offer First Aid should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.
	If Inhaled: Move affected person to fresh air and keep at rest until recovered. Seek medical attention if condition becomes worse after thirty minutes.
	Skin Contact: Remove contaminated clothing and wash affected areas thoroughly with soap and water for at least ten minutes. If irritation develops, seek medical attention. Wash contaminated clothing before reuse.
	Eye Contact: If product gets in eyes, wash it out immediately with water for at least 15 minutes. Seek medical attention immediately. Take special care if exposed person is wearing contact lenses.
	Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.
Note to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

Section 5: Fire fighting measures

Suitable Extinguishing Equipment:	Not combustible. Use extinguishing media suited to burning materials.
Specific hazards from arising from the chemical:	<p>The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.</p> <p>Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.</p>
Special Protective Equipment and Precautions for Fire Fighters:	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:	In case of spillage it is important to take all steps necessary to: Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove any sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.
Environmental precautions:	Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities. Reposition any leaking containers so as to minimise leakage. Dam and absorb spill with an absorbent material (eg sand or soil). Shovel the absorbed spill into drums.
Methods for containment and cleaning up:	Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately). Clean contaminated floors and objects thoroughly, observing environmental regulations If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.
Reference to other sections:	Information regarding safe handling see section 7. Information regarding personal protective equipment see section 8. Information regarding waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling:	<p>Safe work practices are recommended. Avoid contact with eyes and skin. When opening the container and preparing spray wear appropriate PPE (refer Section 8). Do not spray under high wind conditions.</p> <p>Hygiene measures: When using products, do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Avoid contact with eyes and skin.</p>
Conditions for safe storage, including incompatibilities:	<p>Keep out of reach of children, unauthorised persons and animals. Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food. Store out of direct sunlight and extreme temperature. Always read the label and any attached leaflet before use.</p>

Section 8: Exposure controls and personal protection

Appropriate engineering controls:	Exposure limits have not been established by SWA for any of the significant ingredients in this product. No special requirements. Product is used outdoors. Control process conditions to avoid contact. Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits.
Personal protective equipment (PPE):	<p>When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.</p> <p>When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.</p> <p>Face and Eye Protection: Face shield or goggles. Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat. Gloves: Elbow-length chemical resistant PVC gloves. Respiratory: If airborne, concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.</p> <p>Recommended to use Australian and New Zealand Standard PPE: Overalls: AS 3765, Clothing for protection against Hazardous chemicals Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves) Goggles and face shield: AS/NZS 1337, Eye protectors for industrial applications. Footwear: AS/NZS 2210, Occupational protective footwear Respirators: AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices AS/NZS 1716, Respiratory Protective Devices</p>
Requirements concerning special training:	Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

Section 9: Physical and chemical properties

Appearance:	Clear yellow to red liquid	Boiling Point:	Approximately 100°C at 100kPa
Odour:	Sweet odour	pH:	1.18 at 20°C
Freezing/Melting Point:	Below 0°C	Volatiles:	Water component
Specific Gravity:	No information available	Evaporation Rate:	As for water
Volatility:	No information available	Solubility in water:	Completely soluble in water
Odour Threshold:	No information available	Vapour Density:	As for water
Co-eff Oil/water distribution:	No information available	Vapour Pressure:	2.37 kPa at 20°C (water vapour pressure)
Evaporation Rate:	As for water	Auto ignition temp:	Not applicable - does not burn

Section 10: Stability and reactivity (cont. page 5)

Possibility of hazardous reactions:	Hazardous polymerisation will not occur.
Chemical Stability:	Stable at ambient temperature and under normal conditions of use.
Conditions to avoid:	Direct sunlight.
Incompatible Materials:	Bases, Oxidising Agents.

Hazardous Decomposition Products:

Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form hydrogen chloride gas, other compounds of chlorine. May form hydrogen fluoride gas and other compounds of fluorine. Sodium compounds.

Section 11: Toxicological information

Toxicity:

Acifluorfen:
 LD50 Oral, Rat 2025 (male); 1370 (female)mg/kg
 LD50 Dermal, Rabbit >2000mg/kg
 LC50 Inhalation, Rat >6.9mg/L/4hr

Chronic toxicity:

Male and female rats fed high daily doses for 4 weeks showed decreased food consumption and increased liver and kidney weights. In a 1-year study of rats fed lower doses, both sexes experienced decreased body weight and increased liver weight. In a 2-year study, beagle dogs fed high daily doses of acifluorfen showed irregular heart rhythms. In addition, there were some blood changes and an increase in liver and kidney weights.

Reproductive effects:

No adverse effects were observed in rodents or their offspring when the parents were fed daily doses of acifluorfen well below lethal levels. Body weights, food consumption, fertility, and pregnancy were comparable in both treated and untreated animals. However, in another rat study, at higher doses, both parents and offspring suffered kidney lesions and death. This suggests that levels high enough to cause toxicity in the mother are needed to affect reproduction.

**Acute Health Effects
Teratogenic effects:**

Acifluorfen may have teratogenic effects at high doses. In one study, rats were given high doses of sodium acifluorfen through a stomach tube during the critical periods of pregnancy. At these doses, body weights of the fetuses were lower, and bone development was delayed. Teratogenic effects in humans are unlikely at expected exposure levels.

Mutagenic effects:

Various mutagenesis assays of acifluorfen products on both bacteria and mammalian cells indicate that they do not cause mutations.

Carcinogenic effects:

One study of mice fed high doses of acifluorfen for 18 months showed decreases in body weight and increases in both benign and malignant liver tumours. These data are not sufficient to characterize the carcinogenicity of acifluorfen.

Organ toxicity:

In addition to being a skin and eye irritant, acifluorfen affects the weight and functions of the liver, heart, and kidneys at high doses.

Fate in humans and animals:

No data are currently available.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.
 NTP: No significant ingredient is classified as carcinogenic by NTP.
 IARC: No significant ingredient is classified as carcinogenic by IARC.

The ADI for Acifluorfen as the sodium salt is set at 0.015mg/kg/day. The corresponding NOEL is set at 1.5mg/kg/day. The level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

Section 12: Ecological information (cont. page 6)

Effects on birds:

Acifluorfen is practically nontoxic to mallards and is moderately toxic to bobwhite quail. The acute oral LD50 of acifluorfen is 2821 mg/kg in mallards, and 325 mg/kg in bobwhite quail. The range in toxicity to these different species makes any generalizations about its overall toxicity to birds difficult.

Effects on aquatic organisms:	Acifluorfen is slightly toxic to fish. The LC50 values for the sodium salt are 31 g/L in bluegill and 54 mg/L in rainbow trout. It has a low toxicity to crustaceans. The LC50 (96-hour) in fiddler crabs is greater than 1000 mg/L, and is 150 mg/L in freshwater clams.
Effects on other organisms:	Acifluorfen is nontoxic to bees.
Environmental Fate:	
Breakdown in soil and groundwater:	Acifluorfen is moderately persistent in soils. In one study, acifluorfen applied to a silt loam degraded with a half-life of 59 days. Microbial action accounts for the majority of the compound's loss from soil. No leaching of the chemical below 3 inches was observed.
Breakdown in water:	Acifluorfen is stable in water; no degradation was observed in laboratory studies lasting up to 28 days. However, when it is exposed to sunlight, it degrades quickly. The half-life under continuous light was 92 hours in water. When it does degrade, the primary breakdown product tends to vaporize.
Breakdown in vegetation:	In susceptible plants, such as common cocklebur and ragweed, acifluorfen is absorbed through the leaves and roots and is translocated only slightly. It works by inhibiting a critical plant enzyme. In acifluorfen resistant plants like soybeans, no acifluorfen movement from the treated leaves takes place because plants break down acifluorfen into a nontoxic form. High relative humidity favours herbicide penetration into the plant. High temperatures before and after spraying tend to increase susceptibility and death.

Section 13: Disposal considerations

Product Disposal:	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal:	Do not use this container for any other purpose. Triple rinse containers; add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non-returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Section 14: Transport information

General Transport Information:	It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.
Land:	Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition).
Sea and Air:	Considered non-dangerous for transport by sea and air in accordance with the IMDG Code 37-14.

Section 15: Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 6	
Registration status: Registered	APVMA approval: 70359/63272

Section 16: Any other relevant information

Date of preparation or last revision: This Safety Data Sheet (SDS) was completed 1 November 2021 and replaces SDS dated 27 January 2017.

Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.
GHS: Globally Harmonised system of Classification and Labelling of chemicals HSIS: Hazardous Substances Information System
NOHSC: National Occupational Health and Safety Commission
CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)
STEL Exposure standard - short term exposure limit.
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
ADG: Australian Dangerous Goods
IMDG: International Maritime Code of Dangerous Goods IATA: International Air Transport Association

END OF SDS

Source of Data: The information provided in this SDS is sourced from Grow Choice studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

Note: This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions

CONTACT POINT: Grow Choice Pty Ltd
(02) 6766 3979
24 HOURS EMERGENCY CONTACT: 1800 033 111

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.
If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

DISCLAIMER

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Grow Choice's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Grow Choice shall have no liability.

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