

**1. Product identifier & identity for the chemical**

<b>Product identifier</b>	<b>Grass-up Herbicide</b> (Agricultural Herbicide)
<b>Chemical name</b>	300g/L TRICLOPYR present as the butoxyethyl ester 100g/L PICLORAM present as hexyloxypropylamine salt
<b>Other means of Identification</b>	Grow Choice Product Code: 3010 AVPMA registered number: 566601
<b>Formulation type</b>	<b>Liquid</b>
<b>Use</b>	For the control of a range of environmental and noxious woody and herbaceous weeds as specified in the Directions for Use table.
<b>Suppliers name, address and phone number:</b>	Grow Choice Pty Ltd 113 Fitzroy Street   TAMWORTH NSW 2340 Phone: 02 6766 3979 Email: admin@growchoice.com.au
<b>Emergency phone #</b>	In Case Of Emergency Dial 000
<b>Poisons Information Centre</b>	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 <a href="http://www.chw.edu.au/poisons/contact.htm">http://www.chw.edu.au/poisons/contact.htm</a>

**2. Hazard Identification**

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).

This product is **not classified as Dangerous Goods** by ADG, IATA or IMDG/IMSBC.

<b>Classification of the hazardous chemical</b>	Acute Toxicity - Oral: Category 4 Sensitization - Skin: Category 1 Eye Damage/Irritation: Category 2A
<b>GHS symbol</b>	Exclamation mark      Corrosion



<b>Signal word</b>	<b>Warning</b>
<b>General Precautionary Statements</b>	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.
<b>Hazard Statements</b>	<b>Harmful if swallowed</b> <b>Causes skin irritation/May cause an allergic skin reaction. Causes serious eye irritation.</b>
<b>Prevention Statements</b>	<b>Wash hands and face thoroughly with soap and water after handling product. Do not eat, drink or smoke when using this product.</b> <b>Wear eye protection/face protection. (Refer Section 8 for specific PPE standards).</b>
<b>Response Statements</b>	<b>If swallowed call the Poison Centre (131126) or doctor/physician if you feel unwell. Rinse mouth.</b> <b>IF ON SKIN: Wash with plenty of soap and water.</b> <b>If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.</b> <b>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</b> <b>If eye irritation persists: Get medical advice/attention.</b>
<b>Storage Statements</b>	No specific statement. Refer to Section 7.
<b>Disposal Statements</b>	<b>Dispose of contents: DO NOT dispose of undiluted chemicals on site. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.</b>

**3. Composition/information on ingredients**

<b>Chemical ingredients, CAS number and other unique identifiers:</b>	<b>Component</b>	<b>CAS No</b>	<b>Proportion (w/v)</b>
	Triclopyr butoxyethyl ester	064700-56-7	428g/L
	Picloram hexyloxypropylamine salt	001918-02-1	192g/L
	Other non-hazardous ingredients		<100g/L

**4. First Aid Measures**

<b>Swallow</b>	If swallowed, DO NOT INDUCE VOMITING. Seek urgent medical advice and show this SDS to medical practitioner or contact the Poisons Information Centre on 13 11 26 (within Australia). Make every effort to prevent vomit from entering the lungs by careful placement of the affected patient.
<b>Eye</b>	If product gets in the eyes, remove contact lenses (if necessary), hold open eye lids and wash with water for minimum of 15 minutes. Seek medical attention.
<b>Skin</b>	If product gets on skin, remove the contaminated clothing and wash the affected area thoroughly with soap and water. Seek medical attention after the thorough wash has been undertaken. Launder contaminated clothing before re-use.
<b>Inhaled</b>	If inhaled, removed affected person to fresh air until recovered. If symptoms develop or persist, seek urgent medical attention and take this SDS for the medical practitioner.
<b>First Aid</b>	<b>In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26</b> and speak to a Poisons Information Specialist.
<b>Advice to doctor</b>	No specific antidote exists. Treat symptomatically with supportive care.

## 5. Fire Fighting Measures

<b>Suitable extinguishing media</b>	Carbon dioxide, dry chemical, foam, water fog. This product is unlikely to spontaneously polymerise. Decomposition Products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Hydrogen chloride gas, chlorides, and in some circumstances, phosgene. Materials to avoid: Strong oxidising agents.
<b>Specific hazards arising from the chemical</b>	Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.
<b>Special protective equipment and precautions for fire fighters</b>	If a significant quantity of this product is involved in a fire, call the fire brigade. Immediately evacuate the area of unnecessary personnel. Fire fighters should wear Safe Work Australia approved self-contained breathing apparatus (AS/NZS 1715/1716) and full protective gear. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and respirator. All skin areas should be covered.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	In case of spillage it is important to take all steps necessary to: Avoid eye and skin contact; Avoid contamination of waterways; Keep all bystanders away Wear goggles, half face-piece respirator with combined duct and vapor cartridge, full-length clothing and PVC gloves.
<b>Environmental precautions</b>	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.
<b>Methods and materials for containment and cleaning up</b>	<b>Small Spill:</b> Wear protective equipment (see Personal Protection Section 8). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material when absorption is completed and contain in a refuse vessel for disposal in the same manner as for containers (see Disposal Section). If necessary wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal as above. Prevent entry of chemical or used/damaged containers into drains, streams or waterways. <b>Large Spill:</b> Wear protective equipment (see Personal Protection Section 8). Clear area of all unprotected personnel. Place leaking containers into salvage drums. Apply absorbent material such as earth, sand or cat litter to the spill area. Form a barricade around spill and in front of drains or waterways in spill vicinity, using earth or other available material. Prevent entry of chemical or used/damaged containers into drains, streams or waterways. Report large spills to GROW CHOICE 1800 817 676

## 7. Handling and Storage

<b>Precautions for safe handling</b>	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. <b>Hygiene measures:</b> 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.
<b>Conditions for safe storage, including any incompatibilities:</b>	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.

## 8. Exposure controls/personal protection (continued on page 3)

<b>Control parameters – exposure standards, biological monitoring</b>	A time weighted average (TWA) has been established for picloram, present in significant quantities in this product. This value is 10 mg/m <sup>3</sup> . The corresponding STEL level is "not set". The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The ADI (Acceptable Daily Intake) for Triclopyr is set at 0.005 mg/kg/day. The corresponding NOEL (No - observable-effect-level) is set at 0.5 mg/kg/day. The ADI for picloram is set at 0.07 mg/kg/day. The corresponding NOEL is set at 7 mg/kg/day. Values taken from Australian ADI List, 30 June 2014.
<b>Engineering Controls</b>	In industrial situations, concentration values below the TWA value should be maintained. Values may 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 vapors are high, you are advised to modify the process or environment to reduce the problem.
<b>Personal protective equipment (PPE):</b>	Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. If the product is in the eyes, wash it out immediately with water. DO NOT inhale the spray mist. When preparing the spray, wear cotton overalls buttoned to the neck and wrists, a washable hat, elbow-length PVC gloves and a face shield or goggles. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirement or guidelines. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing. 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.

When using the prepared spray 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.

**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.

Training as required by State or Local regulations should be adhered to for people who use pesticides in their job or business.

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

#### Requirements Concerning 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.

### 9. Physical and chemical properties

Appearance	Clear brown liquid
Odour	Ester
pH (1% deion. Water);	No test data available
Melting point	Not applicable
Boiling Point	200°C estimated
Flash point	82°C (PMCC)
Flammability	This product is not flammable.
Behaviour in water	Emulsifiable
Viscosity	Not available
Surface tension	Not available
Corrosiveness	Not corrosive
Combustibility	This product is classified as a C1 combustible product
Explosive properties	There is a slight risk of an explosion from this product if it is involved in a fire.
Vapor pressure	0.14 mm Hg at 200C (glycoether), 1.0 x 10 <sup>-5</sup> mm Hg at 330C (triclopyr butoxyethyl ester), no data for picloram salt, 6.15 x 10 <sup>-7</sup> mm Hg at 350C (picloram acid).
Specific Gravity	1.124 at 20°C

### 10. Stability and Reactivity

Chemical stability	Product is considered stable in normal storage conditions for a period of at least 2 years after manufacture. This product is unlikely to spontaneously decompose.
Conditions to avoid	Do not store for prolonged periods in direct sunlight. Avoid strong oxidising agents.
Incompatible materials and possible hazardous reactions	Keep away from strong oxidizing agents. Product is now known to polymerise.
Hazardous decomposition products	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Oxides of sulfur. Hydrogen fluoride gas and fluorides. Water. Hazardous reactions

### 11. Toxicological information (continued on page 4)

Picloram salt and triclopyr ester rapidly convert to the parent acids picloram and triclopyr once in soil, water, plants and animals. It is the properties of these compounds which are important in assessing any effects from treatment.

Triclopyr butoxyethyl ester is rapidly hydrolysed to triclopyr acid in soil and water. Triclopyr acid is degraded by microbial action and photodecomposition. Triclopyr acid, in soil, has a half-life of approximately forty days, depending on soil and climatic conditions. In water, triclopyr acid will decompose rapidly with a half-life of one to two days. Minimal leaching of triclopyr acid may occur in light soils under high rainfall conditions.

Contamination of ground water by triclopyr is highly unlikely. If used according to the label, Grass-up will not be harmful to the environment.

Do not contaminate dams, waterways or sewers with this product or the containers which have held this product. Spray drift can cause damage, read the label for more information.

Acute Toxicity – Fish The following is data for the active ingredient, triclopyr as the butoxyethyl ester - LC50 (96hr) for the most sensitive species tested is 0.31 mg/l.

Acute Toxicity – Daphnia LC50 (48hr) for daphnia is 0.66 mg/l for triclopyr butoxyethyl ester. Acute Toxicity - Algae EC50 (48hr) for algae is 0.193 mg/l.

Acute Toxicity - Other Organisms Bees: Not toxic to bees. LD50 >100 µg/bee. LD50 for bobwhite quail is 735 mg/kg for triclopyr butoxyethyl ester.

Acute Toxicity – Fish EC50 (48hr) for daphnia is 63.8 mg/l for picloram potassium salt.

Acute Toxicity –Daphnia EC25 for algae is 52.6 mg/l for picloram potassium salt.

LC50 (96hr) for rainbow trout is 26 mg/l for picloram potassium salt.

**Symptoms related to exposure Information on routes of exposure: Inhalation** With the precautions outlined in this SDS and Label are followed, no harmful effects are expected.

**Ingestion** The components of the product are of low volatility and no adverse effects are expected from handling the concentrate.

Ingestion of the concentrate in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.

**Skin** May irritate the skin. May cause sensitisation by prolonged skin contact. May irritate the eyes.

**Chronic Effects** Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Reproductive Data indicates no reproductive effects.

**Skin Sensitisation** Prolonged and repeated skin contact may result in skin sensitisation.

**Toxicity** Triclopyr has been assessed in animals and some data exists that triclopyr is a substance which causes some concern for humans owing to possible carcinogenic effects from long term exposure, but in respect of which the available information is not adequate for making a satisfactory assessment.

Carcinogenicity

**Acute Toxicity - Oral**

**Acute Toxicity - Dermal** LD50 (rat) 803 mg/kg for triclopyr butoxyethyl ester; LD50 (rat) >5000 mg/kg for picloram acid

LD50 (rabbit) >2000 mg/kg for triclopyr butoxyethyl ester; LD50 (rabbit) >2000 mg/kg for picloram acid

LC50 (rat) (4hr) >4.8 mg/l for triclopyr butoxyethyl ester; LC50 (rat) (4hr) >1.63 mg/l for a similar picloram salt

**Other information**

The Australian Acceptable Daily Intake (ADI) for triclopyr for a human is 0.005 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.5 mg/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 and Environmental Health, 'ADI List', June 2014).  
ADI for picloram is 0.07 mg/kg/day, NOEL 7 mg/kg/day.O

**12. Ecological information**

<b>Ecotoxicity</b>	Triclopyr butoxyethyl ester is toxic to fish, moderately toxic to aquatic organisms and livestock, and slightly toxic to birds. It has low toxicity to honey bees. In soil and water, triclopyr butoxyethyl ester hydrolyses to triclopyr acid, which has low toxicity to fish, aquatic organisms, livestock, birds and honey bees.
<b>Persistence and degradability</b>	
<b>Bioaccumulative potential</b>	Triclopyr does not bio accumulate in animal systems.
<b>Mobility in soil</b>	The breakdown of <b>picloram</b> in soil is variable and is influenced by soil moisture, temperature and organic content.
<b>Environmental Fate</b>	Under spill conditions or very high use rates, residues could remain in the soil up to four years, particularly in arid soils. At low application rates, under warm, moist conditions, residues decline sufficiently to allow growth of susceptible plants within twelve months. In soil, picloram is degraded by photo degradation and microbial action. In water, it is degraded by ultra-violet light with a half-life of one to forty days depending on sunlight intensity. Picloram typically remains in the top thirty centimetres of a soil profile depending on soil adsorption properties. <b>Triclopyr</b> butoxyethyl ester is rapidly hydrolysed to triclopyr acid in soil and water. Triclopyr acid is degraded by microbial action and photodecomposition. Triclopyr acid, in soil, has a half-life of approximately forty days, depending on soil and climatic conditions. In water, triclopyr acid will decompose rapidly with a half-life of one to two days. Minimal leaching of triclopyr acid may occur in light soils under high rainfall conditions. Contamination of ground water by picloram and triclopyr is highly unlikely. If used according to the label, Grass-up Herbicide will not be harmful to the environment.

**13. Disposal considerations**

<b>Disposal of product</b>	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..
<b>Disposal of Container</b>	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.

**14. Transport information**

***It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.***

<b>UN number</b>	No special storage and transport requirements.
<b>Proper shipping name</b>	This product has no UN classification.
<b>Transport hazard class(es)</b>	Observe all relevant regulations regarding sale, transport and storage of this class of product. Store in the closed, original container in a cool, well-ventilated area.
<b>Packing group</b>	Do not store for prolonged periods in direct sunlight.
<b>Environmental hazards</b>	Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.
<b>Special precautions during transport</b>	
<b>Hazchem Code</b>	

**15. Regulatory information**

<b>Poisons Schedule number</b>	This product is an S6 Poison.
<b>Safety, health and environmental regulations specific for the product in question</b>	Avoid contact with food, foodstuff empties, feedstuffs, fertilizers, seeds, clothing, drugs or other household goods during transport and storage.

**16. Other information**

<b>Date of Review</b>	This Safety Data Sheet (SDS) was reviewed May 2020 and replaces the Material Data Safety Sheet dated April 2015.
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**End of SDS**

**DISCLAIMER:** This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof. Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local Government regulations.