



Material Safety Data Sheet

Infosafe No™ 3NU4V Issue Date : February 2013 ISSUED by CRPCARE

Product Name **GRANDO 600 Herbicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name GRANDO 600 Herbicide
Product Code 0510
Product Type Group I Herbicide
Company Name Crop Care Australasia Pty Ltd (ABN 53 061 362 347)
Address Unit 15/16 Metroplex Avenue Murarrie
 Queensland 4172 Australia
Emergency Tel. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 7 3909 2000
 Fax: +61 7 3909 2010
Recommended Use For the control of various woody and broadleaf weeds as specified in the Directions for Use table on the label.
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous
 HAZARDOUS SUBSTANCE.
 NON-DANGEROUS GOODS.
 Hazard classification according to the criteria of NOHSC.
 Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) Classified as hazardous
 R22 Harmful if swallowed.
 R36 Irritating to eyes.
 R43 May cause sensitization by skin contact.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
 S2 Keep out of reach of children.
 S24/25 Avoid contact with skin and eyes.
 S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S6

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Triclopyr (present as the butoxyethyl ester)	64700-56-7	600 g/L
	Butyl diglycol	112-34-5	10-30 %
	Other non-hazardous ingredients		Balance

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.
Ingestion If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
Skin Remove contaminated clothing and launder before re-use.
 Wash affected areas thoroughly with soap and water.
 Seek medical advice, but only after the exposed skin has been thoroughly washed.
Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.

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First Aid Facilities Seek medical advice.
If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products If involved in a fire, it will emit oxides of carbon, oxides of nitrogen, hydrogen chloride and possibly phosgene.

Special Protective Equipment for fire fighters Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

Emergency Action in case of Fire If exposed to fire, keep container cool by spraying with water. If possible, remove other containers from the area of fire.

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.

Conditions for Safe Storage Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.
Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve.
Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Tank Cleaning See label for detailed information on cleaning of spray equipment.

Other Information Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Other Exposure Information EU. exposure standards for triclopyr are TWA 67.5mg/m³, STEL 101.2 mg/m³.

Engineering Controls Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment It is good practice to wear suitable personal protective equipment (PPE).
When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length rubber gloves and face shield or goggles.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Amber liquid

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Solubility in Water	Disperses in water.
Specific Gravity	1.21
Vapour Pressure	0.48 mPa (triclopyr butoxyethyl ester)
Flash Point	95°C
Flammability	Combustible liquid C1.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation	High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract.
Ingestion	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.
Eye	Will irritate the eyes.
Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Mutagenicity	Data indicates no mutagenic effects.
Carcinogenicity	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.
Acute Toxicity - Oral	LD50 (rat) 803 mg/kg for triclopyr butoxyethyl ester
Acute Toxicity - Dermal	LD50 (rabbit) >2000 mg/kg for triclopyr butoxyethyl ester
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >4.8 mg/l for triclopyr butoxyethyl ester
Eye Irritation	Moderate eye irritant.
Skin Irritation	Mild to moderate skin irritant.
Skin Sensitisation	Prolonged and repeated skin contact may result in skin sensitisation.
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, 'ADI List', June 2012).

12. ECOLOGICAL INFORMATION

Persistence / Degradability	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, Grando 600 will not be harmful to the environment.
Other Precautions	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environ. Protection	Spray drift can cause damage, read the label for more information.

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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 0.193 mg/l.

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

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 or preferably pressure rinse inner bladder or containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. DO NOT burn empty containers or product.

14. TRANSPORT INFORMATION

Transport Information It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

Storage and Transport Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

UN Number (Sea Transport) For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 3082

IMO Class/Packing Group Class 9;

IMO Marine Pollutant Marine Pollutant

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Triclopyr)

15. REGULATORY INFORMATION

Poisons Schedule S6

Packaging & Labelling POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard Category Harmful, Irritant

Other Information This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 59202.



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16. OTHER INFORMATION

Date of preparation or last revision of MSDS Reviewed and updated 04/02/2013.
This SDS replaces document dated March 2012.

Contact Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
Person/Point After Hours: Shift Supervisor Phone: 1800 033 498

Literature EFSA Scientific Report (2005) 56, 1-103 conclusion on the peer review of
References triclopyr.

Revisions The MSDS was reviewed. Minor changes were made to the information.

Highlighted See section 4 - First Aid measures - ingestion; and
See section 7 - conditions for storage.
...End Of MSDS...

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