

Infosafe No™ 3NUZF	Issue Date : June 2017	ISSUED by NUFARM
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 Product Name **IGRAN 500 Flowable Liquid Herbicide**

Classified as hazardous

1. Identification

GHS Product Identifier	IGRAN 500 Flowable Liquid Herbicide
Product Code	0784
Product Type	Group C Herbicide
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Emergency phone number	1800 033 498 (24hr Australia)
Recommended use of the chemical and restrictions on use	Controls certain early competing broadleaf weeds in wheat, barley, triticale, pastures (including plantain pastures) and some varieties of oats and field peas as shown in the Directions for Use table on the label.
Other Information	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

2. Hazard Identification

GHS classification of the substance/mixture	ED1 Eye Damage/Irritation: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	H318 Causes serious eye damage.
General Precautionary Statement (s)	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
Pictogram (s)	Corrosion, The below pictogram is a GHS Hazard symbol for workplace use only. See SECTION 14 for Dangerous Goods information.



Precautionary statement – Prevention	P280 Wear protective gloves, clothing, eye and face protection.
Precautionary statement – Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician.
Other Information	Poisons Schedule S5

3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Terbutryn	886-50-0	500 g/L
	Glycerine	56-81-5	0-10 %
	Propylene glycol	57-55-6	0-10 %
	Anionic Surfactant		0-10 %
	Non hazardous components		0-10 %
	Water		30-60 %

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4. First-aid measures

Inhalation	Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and 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	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
Advice to Doctor	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazards from Combustion Products	If involved in a fire, the dehydrated components may emit nitrogen oxides, carbon oxides and sulphur oxides.
Special Protective Equipment for fire fighters	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
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. On-site disposal of concentrate is not acceptable.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. Handling and storage

Precautions for Safe Handling	For personal protective equipment (PPE) and hygiene advice, refer Section 8.
Conditions for safe storage, including any incompatibilities	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
Other Information	Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values	Safe Work Australia has set the following exposure standard for glycerine : TLV (TWA) 10 mg/m ³ , STEL -. Safe Work Australia has set the following exposure standard for propylene glycol : TLV (TWA) 474 mg/m ³ , STEL -.
Appropriate engineering controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Respiratory Protection	Do not inhale spray mist.
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 impervious gloves and face shield or goggles. Re-entry period: Do not enter treated area until spray has dried.
Hygiene Measures	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

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Requirements Concerning Special Training After each day's use, wash contaminated clothing and safety equipment. 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	Opaque yellow liquid
Solubility in Water	Disperses in water.
Specific Gravity	1.06
Vapour Pressure	0.225 mPa @ 25°C for terbutryn
Volatile Component	37%
Partition Coefficient: n-octanol/water	Kow Log P is 3.65
Flammability	Non flammable liquid

10. Stability and reactivity

Possibility of hazardous reactions	Keep away from strong oxidising agents.
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.
Acute Toxicity - Oral	LD50 (rat) >3000 mg/kg for a similar product LD50 (rat) 2500 mg/kg for terbutryn
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for terbutryn
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >2.2 mg/l for terbutryn
Ingestion	The concentrate is of low toxicity if swallowed.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur.
Skin	Acute dermal toxicity has not been determined for this product; based on data available for its components, dermal toxicity is expected to be low.
Eye	May cause severe eye irritation.
Skin Sensitisation	Product is not a skin sensitiser.
Carcinogenicity	The weight of the evidence is that terbutryn is not carcinogenic.
Chronic Effects	Repeated exposure may cause allergic disorders.
Serious eye damage/irritation	This product is a severe eye irritant.
Mutagenicity	The weight of evidence indicates that terbutryn does not present a mutagenic risk.
Skin corrosion/irritation	Not a skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for terbutryn for a human is 0.1 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 10 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', March 2016).

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12. Ecological information

Persistence and degradability	Average field half life of terbutryn is 14 - 50 days.
Known Harmful Effects on the Environment	Terbutryn products do not appear to pose any threat to birds.
Other Precautions	Do not contaminate dams, waterways or sewers with this product.
Environmental Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for the active ingredient, terbutryn. Not toxic to fish. LC50 (96 hr) for rainbow trout is 1.14 mg/l.
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 2.66 mg/l for terbutryn.
Acute Toxicity - Algae	EC50 (72hr) for Pseudokirchneriella subcapitata 0.0024 mg/l for terbutryn.
Acute Toxicity - Other Organisms	The following data is for the active ingredient, terbutryn. Birds: Not toxic to birds. LD50 for bobwhite quail is 5000 mg/kg Bees: Not toxic to bees. LD50 >100 µg/bee.

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 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. Empty containers and product should not be burnt. 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.

14. Transport information

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 Terbutryn)

15. Regulatory information



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Regulatory Information Australia: WHS regulations (2011) - Schedule 11: classification not listed.
Poisons Schedule S5
Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Other Information This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 58673.

16. Other Information

Date of preparation or last revision of SDS 29/06/2017
Contact Person/Point Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted The SDS was reviewed. Minor changes were made to the information and product has been rebranded.
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