

Infosafe No™ 3NUSC Issue Date : June 2017 ISSUED by NUFARM


 Product Name **TERRAIN® 500 WG HERBICIDE**

Classified as hazardous

1. Identification

GHS Product Identifier TERRAIN® 500 WG HERBICIDE
Product Code 0841
Product Type Group G 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 For rapid knockdown and control of various grass and broadleaved weeds when mixed with certain glyphosate or paraquat/diquat herbicides as per 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 TR1 Toxic to Reproduction: Category 1
Signal Word (s) DANGER
Hazard Statement (s) H360 May damage fertility or the unborn child.
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) Health hazard


Precautionary statement – Prevention P202 Do not handle until all safety precautions have been read and understood.
 P281 Use personal protective equipment as required.
Precautionary statement – Response P308+P313 IF exposed or concerned: Get medical advice/attention.
Other Information Poisons Schedule S6

3. Composition/information on ingredients

Chemical Characterization Solid

Ingredients	Name	CAS	Proportion
	Flumioxazin	103361-09-7	500 g/kg
	Kaolin	1332-58-7	10-30 %
	Other ingredients (non-hazardous)		10-30 %

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

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Skin placement of the patient.
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.
Seek medical advice if irritation develops or persists.

First Aid Facilities 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 or spray, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products May emit toxic smoke and fumes if involved in fires or exposed to extreme heat.

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 Recover the product by sweeping up or vacuuming without raising dust.
Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.
Wear specified PPE to decontaminate personnel and equipment, or to handle broken packages or containers.

Environmental Precautions This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. Handling and storage

Precautions for Safe Handling Avoid generating dusts while handling the product and mixing.
If dusts are generated, it is advisable to wear a dust mask, refer Section 8.
Warning: This product contains flumioxazin which causes birth defects in laboratory animals. Women of child bearing age should avoid contact with flumioxazin.

Conditions for safe storage, including any incompatibilities Store in the closed, original container in a dry, well ventilated area out of direct sunlight.

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

Occupational exposure limit values No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts not otherwise specified is 10 mg/m³.

Appropriate engineering controls Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment 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 PVC gloves and 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.
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.

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9. Physical and chemical properties

Form	Solid
Appearance	Light brown extruded granules.
Solubility in Water	Disperses in water.
pH	5
Partition Coefficient: n-octanol/water	Kow Log P is 2.55

10. Stability and reactivity

Chemical Stability	Stable under normal conditions.
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) >5000 mg/kg for the formulated product
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for the formulated product
Acute Toxicity - Inhalation	LC50 (rat) (4hr) (maximum attainable concentration) >0.969 mg/l for the formulated product
Ingestion	The concentrate is of low toxicity if swallowed.
Skin Sensitisation	Product is not a skin sensitiser.
Reproductive Toxicity	Flumioxazin causes birth defects in laboratory animals.
Chronic Effects	Repeated exposures to flumioxazin technical in animals have produced anaemia and other blood formation changes, organ weight changes and changes in blood chemistry. Flumioxazin technical did not produce cancer in lifetime feeding studies in laboratory animals. Birth defects were produced in the offspring of female rats exposed to flumioxazin technical at doses greater than 30 mg/kg bw/day. No developmental effects were observed in rabbits. Reproductive effects were observed in rats exposed to flumioxazin technical at greater than 100ppm in the diet.
Serious eye damage/irritation	Mild eye irritant.
Skin corrosion/irritation	Mild skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for flumioxazin for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 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: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', March 2016).

12. Ecological information

Persistence and degradability	Half life in soil is typically (in aerobic soil) 12-18 days.
Other Precautions	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environmental Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	LC50 (96hr) for rainbow trout is >2.3 mg/l for the formulated product
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia magna is 5.9 mg/l for the formulated product.

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Acute Toxicity - Algae EC50 (72hr) for algae 0.0012 mg/l for flumioxazin.

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 Break, crush or puncture sachets and containers and deliver empty packaging to 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.

14. Transport information

Storage and Transport Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.

UN Number (Sea Transport) 3077

IMO Class/Packing Group Class 9; Packing Group III

IMO Marine Pollutant Marine Pollutant (applies to packs greater than 5kg or 5lt).

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains Flumioxazin)

15. Regulatory information

Poisons Schedule S6

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: 69830.

16. Other Information

Date of preparation or last revision of SDS Revised 05/06/2017
Replaces document dated March 2014.

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

Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information.
IMO Marine Pollutant in section 14 updated (ref: IMDG 2016, paragraph 2.10.2.7).
...End Of MSDS...

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