



Material Safety Data Sheet

CS: 1.4.21

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Infosafe No™ 3NUGN	Issue Date :March 2008	ISSUED by NUFARM	CS: 1.4.21
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Product Name **GRUNT 750 WDG Herbicide**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	GRUNT 750 WDG Herbicide
Product Code	0930
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
Emergency Tel.	1800 033 498 (24hr Australia)
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Recommended Use	For the control of certain sedges, perennial grasses, broadleaf and woody weeds in Pinus radiata forests, and industrial weed control situations as per 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 according to criteria of NOHSC 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 according to criteria of NOHSC R22 Harmful if swallowed. R36 Irritating to eyes.
Safety Phrase(s)	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. 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	Solid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Hexazinone tech.	51235-04-2	750 g/kg
	Kaolin clay	1332-58-7	10-30 %
	Anionic Components		<10%

4. FIRST AID MEASURES

Inhalation	Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.
Ingestion	Rinse mouth and then drink plenty of water. If vomiting occurs, give more water to drink to assist dilution. Do not give anything by mouth to a semi-conscious or unconscious person. 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.



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Skin Wash affected areas thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.

Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
Seek medical advice immediately.

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, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products If involved in a fire, it may emit oxides of nitrogen and possibly cyanide.

Special Protective Equipment for fire fighters Breathable air apparatus must be worn when fighting a fire in which this product is involved.

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.
On-site disposal of concentrate is not acceptable.

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

7. HANDLING AND STORAGE

Precautions for Safe Handling Avoid generating dusts while handling the product and mixing. Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.
If dusts are generated, it is advisable to wear a dust mask, refer Section 8. Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

Conditions for Safe Storage Store in the closed, original container in a dry, well ventilated area out of direct sunlight.

Tank Cleaning Thoroughly flush all spray equipment with water following the use of this product and before use with other products.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Kaolin clay			10		
Engineering Controls		Handle in well ventilated areas, generally natural ventilation is adequate.				
Respiratory Protection		If dusts are present, wear a class P1 dust mask.				
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.				
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.				



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Requirements Concerning Special Training	NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Appearance	Beige Granules
Solubility in Water	Disperses in water.
Vapour Pressure	0.03 mPa (hexazinone)
Octanol/Water Partition Coefficient	Kow Log P is 1.2 (hexazinone, pH7)
Flammability	Non combustible material.
Other Information	pKa is 2.2 (hexazinone, 25°C)

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Inhalation	May cause irritation to mucous membranes.
Ingestion	Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
Skin	May irritate the skin.
Eye	The concentrate will cause irritation of the eyes.
Reproductive Toxicity	Data indicates no reproductive effects.
Mutagenicity	Data indicates no teratogenic effects.
Acute Toxicity - Oral	LD50 (rat) 1100 mg/kg for hexazinone
Acute Toxicity - Dermal	LD50 (rat) >5278 mg/kg for hexazinone
Acute Toxicity - Inhalation	LC50 (rat) (1hr) >7.48 mg/l for hexazinone
Eye Irritation	Moderate eye irritant.
Skin Irritation	Mild skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.
Other Information	The Australian Acceptable Daily Intake (ADI) for hexazinone 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', September 2007).

12. ECOLOGICAL INFORMATION

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.
Acute Toxicity - Fish	LC50 (96 hr) for rainbow trout is >320 mg/l for hexazinone
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 442 mg/l.
Acute Toxicity - Algae	EC50 (120hr) for Selenastrum capricornutum 0.007 mg/l for hexazinone.



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Acute Toxicity - Other Organisms	Not toxic to birds. LD50 for bobwhite quail is 2258 mg/kg for hexazinone Bees: Not toxic to bees. LD50 >60 µg/bee.
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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. Shake the last amount of product from the bag into application equipment. 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

Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
UN Number (Sea Transport)	3077
IMO Class/Packing Group	Class 9; Packing Group III
IMO Marine Pollutant	Marine Pollutant
IMO Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains hexazinone)

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
AICS (Australia)	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	13/03/2008
Contact Person/Point Revisions Highlighted	Normal Hours: Mr Volker Maier Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498 The MSDS was reviewed. Minor changes were made to the information. ...End Of MSDS...

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