



Material Safety Data Sheet

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Infosafe No. 3NU01 Issue Date : June 2007 ISSUED by NUFARM

Product Name : **AMICIDE 625 SELECTIVE HERBICIDE**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name AMICIDE 625 SELECTIVE HERBICIDE
Product Code 0042
Product Type Group I 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 broadleaved weeds in fallow before direct drilling or sowing of cereals and pastures; and in cereal crops, pastures, sugar cane, peanuts and non-agricultural areas as per the Directions of 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 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) R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid
Ingredients

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
2,4-D present as dimethylamine and diethanolamine salts		625 g/L
Water		380 g/L

Substance Chemical Family Aryloxyalkanoic acid.

4. FIRST AID MEASURES

Inhalation If symptoms develop or persist, seek medical advice.
Remove affected person to fresh air until recovered.
Ingestion If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Give a glass of water.
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.
The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 1 tablespoon) AND if medical assistance is more



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than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.

Skin If skin contact occurs, remove contaminated clothing and wash skin thoroughly with 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 if irritation develops or persists.

Advice to Doctor Treat symptomatically.
No specific antidote.

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.
None required but use water spray to cool containers or personnel threatened by fire.

Hazards from Combustion Products Non-combustible.
May emit toxic fumes of hydrogen chloride or phosgene 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 Hazchem code has not been assigned.
Prevent 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 in sealed open top containers for disposal.
On-site disposal of concentrate is not acceptable.
Dispose of at a landfill in accordance with local regulations.

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

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.

Environmental Precautions This product is a herbicide and spills can damage crops, pastures and desirable vegetation.
Prevent from entering drains, waterways or sewers.
Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do NOT spray in high winds.
Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.
No special precautions are necessary when handling sealed containers.
For personal protective equipment (PPE) and hygiene advice, refer Section 8.

Conditions for Safe Storage Store in the closed, original container in a cool, well ventilated area.
Do not store near oxidisers.
Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Other Information Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses.
Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift.
Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION



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National Exposure Standards	No exposure standard for this product has been set, however, an exposure standard has been set for 2,4-D acid at 10 mg/m ³ .
Engineering Controls	Natural ventilation is sufficient when handling concentrate and preparing spray solution.
Respiratory Protection	Do not inhale spray mist.
Personal Protective Equipment	When preparing spray, wear PVC or rubber apron, elbow length PVC gloves and face shield. When using the prepared spray, wear face shield.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Appearance	Clear, red-brown liquid with ammoniacal odour.
Melting Point	<0°C
Boiling Point	>100°C (for water)
Solubility in Water	Soluble in water.
Specific Gravity	1.254
pH Value	8.5 - 9.5
Vapour Pressure	16mm Hg (for water), 2,4-D amine salt is non volatile.
Volatile Component	30%
Flammability	Non combustibile material.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Incompatible Materials	Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-D acid and largely de-activate the product and cause blockages in spray equipment. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour. Dimethylamine is moderately toxic, LD50 (oral, rat) is 700 mg/kg and a TLV of 10 ppm (TWA) has been set.
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.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. The concentrate is considered harmful by inhalation by Worksafe Australia. A moderate hazard exists from inhalation of spray and care should be taken to avoid inhalation of spray mists.
Ingestion	Not a likely route of exposure. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. However, swallowing of large amounts may cause injury. Ingestion of the product in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.
Skin	Prolonged contact with the concentrate may cause irritation. Prolonged contact of the concentrate with skin will result in absorption of some 2,4-D which can be harmful.
Eye	The concentrate will cause irritation of the eyes.



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Chronic Effects	Prolonged contact with the concentrate may cause damage to the eye. Chronic Overexposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.
Carcinogenicity	The weight of the evidence is that 2,4-D is not carcinogenic.
Acute Toxicity - Oral	LD50 (rat) 699 mg/kg for 2,4-dichlorophenoxyacetic acid LD50 (rat) 700 mg/kg for dimethylamine LD50 (rat) 710 mg/kg for diethanolamine
Acute Toxicity - Dermal	LD50 (rabbit) >2000 mg/kg
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >1.79 mg/l
Skin Irritation	Not a skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.
Other Information	The Australian Acceptable Daily Intake (ADI) for 2,4-D for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.0 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, 'ADI List', TGA, September 2006). In trials using 2,4-D as a drug, studies on volunteers have shown that doses of between 5 and 36 mg/kg body weight do not cause any acute toxic effects. Formulated 2,4-D products can be absorbed by ingestion, inhalation (spray mist) and through the skin. Studies of users (sprayers) has shown that absorption through the skin is the most common route. When used with good agricultural spraying practice and good personal hygiene, absorption of 2,4-D is very low.

12. ECOLOGICAL INFORMATION

Persistence / Degradability	Half life in soil is typically 7 days. Loss from soil is principally by microbial degradation.
Mobility	Rapid degradation in soil prevents significant downward movement under normal conditions.
Known Harmful Effects on the Environment	2,4-D amine products do not appear to pose any threat to birds. 2,4-D amine products do not appear to pose any threat to fish or other aquatic organisms other than in very high concentrations.
Environ. Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	Not toxic to fish. LC50 (96 hr) for (rainbow trout) is ~100 mg/l.
Acute Toxicity - Daphnia	LC50 (48hr) for 2,4-D amines is 184 mg/l.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for (mallard ducks) is >1000 mg/kg Bees: Not toxic to bees. LD50 104.5 µg/bee.
Sewage Treatment	Not inhibitory in sewage system, 2,4-D is rapidly biodegraded.

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 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.



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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.
Returnable containers: empty contents fully into application equipment.
Replace cap, close all valves and return to the point of supply for refill or storage.

14. TRANSPORT INFORMATION

Transport Information	It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.
Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
IMDG UN No	Not a marine pollutant.

15. REGULATORY INFORMATION

Poisons Schedule	S5
Packaging & Labelling	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Harmful
AICS (Australia)	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point	Normal Hours: Mr Volker Maier Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted	The MSDS was reviewed. Various changes were made to the information. ...End Of MSDS...