

Infosafe No™ 3NUEQ	Issue Date : April 2011	ISSUED by NUFARM
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Product Name **SURPASS 475 HERBICIDE**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	SURPASS 475 HERBICIDE
Product Code	0860
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 emerged broadleaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control in crops and situations detailed in the Directions for Use table on the label. Formulated for use with Roundup PowerMax, Roundup CT and other glyphosate products. This is a PHENOXY HERBICIDE that can cause severe damage to susceptible crops such as cotton, grapes, tomatoes, oilseed crops and ornamentals.
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 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 S6

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	94-75-7	475 g/L
	Other ingredients (considered non-hazardous)		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. 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

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Skin	swallowed (more than about 1 tablespoon) AND if medical assistance is more 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.
Eye	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water. Remove contaminated clothing and launder before re-use. If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
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	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 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.
Conditions for Safe Storage	For personal protective equipment (PPE) and hygiene advice, refer Section 8. Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. 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.
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	Clear, brown liquid.
Odour	Fish like odour.
Solubility in Water	Soluble in water.
Specific Gravity	1.207
pH Value	8.5 - 9.5 (1% solution)
Vapour Pressure	2,4-D salts are non-volatile.
Volatile Component	~37% (water)
Flammability	Non combustible material.
Other Information	pKa is 2.73

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 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.

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Eye	The concentrate will cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.
Chronic Effects	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) 949 mg/kg for 2,4-D dimethylamine salt
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for 2,4-D dimethylamine salt
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 3.5 mg/l for 2,4-D dimethylamine salt
Eye Irritation	Product is a severe eye irritant.
Skin Irritation	Not a skin irritant.
Skin Sensitisation	Product is a skin sensitiser.
Other Information	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. 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 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', December 2008).

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.
Other Precautions	This is a phenoxy herbicide that can cause severe damage to susceptible crops such as cotton, grapes, tomatoes, oilseed crops and ornamentals.
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 bobwhite quail is 500 mg/kg Bees: Not toxic to bees. LD50 94 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.

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If recycling, replace cap and return clean containers to recycler or designated collection point.
 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	Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

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
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	Reviewed 12/04/2011
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. Various changes were made to the information. Product is now an S6 Scheduled Poison. ...End Of MSDS...

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