



# Material Safety Data Sheet

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Infosafe No. NU0GX Issue Date : April 2007 ISSUED by NUFARM

Product Name : AVADEX XTRA Selective Herbicide

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** AVADEX XTRA Selective Herbicide  
**Product Code** 0782  
**Product Type** Group E Herbicide  
**Company Name** NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)  
**Address** 103-105 Pipe Road Laverton North  
Victoria 3026 Australia  
**Emergency Tel.** 24hr 1800 033 498  
**Telephone/Fax Number** Tel:  
(03) 9282-1000  
Fax:  
(03) 9282-1001  
**Recommended Use** For the control of Wild oats in Wheat, Triticale, Chickpeas, Barley, Peas, Linseed, Lupins, Canola (Rapeseed), Faba beans and Safflower and for use in mixtures with TriflurX for control of a range of grass and broadleaf weeds in no-till cropping systems, pre-sowing or incorporated by sowing (IBS) 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** 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)** R36/38 Irritating to eyes and skin.  
R43 May cause sensitization by skin contact.  
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.  
R65 Harmful: may cause lung damage if swallowed.  
R66 Repeated exposure may cause skin dryness and cracking.  
R67 Vapours may cause drowsiness and dizziness  
**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 S5

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Characterization** Liquid

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	Tri-allate	2303-17-5	500 g/L
	Liquid Hydrocarbon	64742-94-5	471 g/L
	Surfactant		0-10 %

## 4. FIRST AID MEASURES

**Inhalation** Remove affected person to fresh air until recovered.  
**Ingestion** Rinse mouth and then drink plenty of water.  
Do not give anything by mouth to a semi-conscious or unconscious person.



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

**First Aid Facilities** If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.

**Advice to Doctor** Treat symptomatically.  
If vomiting occurs, solvent present may cause pulmonary pneumonitis.

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media** Water fog, foam, carbon dioxide or dry chemical.

**Hazards from Combustion Products** May emit toxic fumes of sulphur oxides, hydrochloric acid or phosgene if involved in fires or exposed to extreme heat.

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

**Hazchem Code** None Allocated

**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.

**Clean-up Methods - Large Spillages** If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas before absorbing remaining material into vermiculite or other absorbent.  
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.

## 7. HANDLING AND STORAGE

**Conditions for Safe Storage** Store in the closed, original container in a cool, well ventilated area.  
Do not store for prolonged periods in direct sunlight.

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards** No exposure standards have been set for this product or the active ingredients.  
The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m<sup>3</sup>; 17ppm TWA, as total hydrocarbon.

**Engineering Controls** Handle in well ventilated areas, generally natural ventilation is adequate.

**Personal Protective Equipment** When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or 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. By 1st September, 2005 all users must have received such training.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form** Liquid  
**Appearance** Amber to brown coloured liquid.  
**Odour** Typical solvent odour.  
**Boiling Point** 160°C  
**Solubility in Water** Forms an emulsion in water.  
**Specific Gravity** 1.053  
**Vapour Pressure** 16 mPa @ 25°C for triallate  
**Volatile Component** 45% (solvent)  
**Octanol/Water Partition Coefficient** Kow Log P is 4.6  
**Flash Point** 69.5°C  
**Flammability** Combustible liquid C1.

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable under normal conditions.  
**Incompatible Materials** Avoid contact of the concentrate with strong acids and bases.  
**Hazardous Reactions** Keep away from strong oxidising agents.  
**Hazardous Polymerization** Hazardous polymerisation is not possible.

## 11. TOXICOLOGICAL INFORMATION

**Inhalation** High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.  
**Ingestion** Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.  
If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.  
**Skin** Will irritate the skin.  
Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.  
May cause sensitisation by prolonged skin contact.  
**Eye** The concentrate will cause irritation of the eyes.  
**Chronic Effects** Liver and kidney damage has been noted in laboratory animals that have been fed excessive doses of triallate.  
Evidence from animal studies indicate that repeated or prolonged exposure to triallate can result in neurological effects.  
**Reproductive Toxicity** No such effects have been observed in the absence of maternal toxicity.  
**Carcinogenicity** Data indicates no carcinogenic effects.  
**Acute Toxicity - Oral** LD50 (rat) >2000 mg/kg for a similar formulation  
**Acute Toxicity - Dermal** LD50 (rat) >5000 mg/kg for a similar formulation  
**Acute Toxicity - Inhalation** LC50 (rat) (4hr) >5.3 mg/l for triallate  
**Eye Irritation** The product is an eye irritant.  
**Skin Irritation** The product is a skin irritant.



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**Other Information** The Australian Acceptable Daily Intake (ADI) for triallate for a human is 0.005 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.5 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).

## 12. ECOLOGICAL INFORMATION

**Persistence / Degradability** Under prolonged and extremely dry conditions, this product may persist for several months.

**Known Harmful Effects on the Environment** The product is a marine pollutant for sea transport.

**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** The following is data for the active ingredient, triallate.

LC50 (96 hr) for rainbow trout is 1.2 mg/l.

LC50 (96 hr) for bluegill sunfish is 1.3 mg/l.

**Acute Toxicity - Daphnia** EC50 (48hr) for daphnia is 0.43 mg/l for triallate.

**Acute Toxicity - Algae** LC50 (96 hr) for Selenastrum Capricornutum 0.12 mg/l.

**Acute Toxicity - Other Organisms** Birds: Not toxic to birds. LD50 for bobwhite quail is >2251 mg/kg  
Not toxic to bees.

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

**U.N. Number** None Allocated

**Proper Shipping Name** None Allocated

**DG Class** None Allocated

**Hazchem Code** None Allocated

**Packing Group** None Allocated

**Storage and Transport** Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.



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<b>UN Number (Sea Transport)</b>	3082
<b>IMO Class/Packing Group</b>	Class 9; Packing Group III
<b>IMO Marine Pollutant</b>	Marine Pollutant
<b>IMO Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Triallate)

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## 15. REGULATORY INFORMATION

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

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## 16. OTHER INFORMATION

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<b>Contact Person/Point</b>	Normal Hours: Mr Volker Maier	Phone: (03) 9282 1000
	After Hours: Shift Supervisor	Phone: 1800 033 498
<b>Revisions Highlighted</b>	The MSDS was reviewed. Minor changes were made to the information.	
	...End Of MSDS...	