



Material Safety Data Sheet

Page: 1 of 5

Infosafe No. NU0GX Issue Date : November 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. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 3 9282-1000
Fax: +61 3 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

Ingredients	Name	CAS	Proportion
	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.
If swallowed do NOT induce vomiting; seek medical advice immediately and show



Material Safety Data Sheet

Page: 2 of 5

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

Product Name : **VADEX XTRA Selective Herbicide**

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.

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 bunded 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/m³; 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.



Material Safety Data Sheet

Page: 3 of 5

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

Product Name : **VADEX XTRA Selective Herbicide**

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.

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.



Material Safety Data Sheet

Page: 4 of 5

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

Product Name : AVADEX XTRA Selective Herbicide

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

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) 3082

IMO Class/Packing Group Class 9; Packing Group III

IMO Marine Pollutant Marine Pollutant



Material Safety Data Sheet

Page: 5 of 5

Infosafe No.	NU0GX	Issue Date : November 2007	ISSUED by NUFARM
--------------	-------	----------------------------	------------------

Product Name : **AVADEX XTRA Selective Herbicide**

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains Triallate)

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, Irritant

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. Minor changes were made to the information.

...End Of MSDS...