



Material Safety Data Sheet

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Infosafe No. 3NU73 Issue Date : November 2005 ISSUED by NUFARM

Product Name : ASSOCIATE Herbicide

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name ASSOCIATE Herbicide
Product Code 0095
Product Use For the control of certain brush and broadleaf species in native pastures, rights of way and commercial and industrial areas and for the control of certain broadleaf weeds in winter cereal crops, grass pastures and pasture renovation as per the Directions for Use table on the label.
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 Number/Fax Tel: (03) 9282-1000 Fax: (03) 9282-1001
Product Type Group B Herbicide
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. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Ingredients	Name	CAS	Proportion
	Metsulfuron Methyl	74223-64-6	600g/kg
	Silica, amorphous precipitated	112926-00-8	20g/kg
	Kaolin clay	1332-58-7	155g/kg
	Other ingredients (non-hazardous)		Balance

3. HAZARDS IDENTIFICATION

Other Information Poisons Schedule : Not Scheduled

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.
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 if irritation develops or persists.
First Aid Facilities If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).
Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazardous Non-combustible.
Combustion Products If involved in a major fire, could evolve oxides of carbon, nitrogen or sulfur.
Protective Equipment Breathable air apparatus must be worn when fighting a fire in which this product is involved.

6. ACCIDENTAL RELEASE MEASURES

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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.

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

7. HANDLING AND STORAGE

Handling Avoid generating dusts while handling the product and mixing.

Storage Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. 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 washed with chlorine bleach solution as directed on the label. 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	
	Silica, amorphous precipitated			10		
	Kaolin clay			10		
Personal Protective Equipment	It is good practice to wear suitable personal protective equipment (PPE). 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.					
Eng. Controls	Handle in well ventilated areas, generally natural ventilation is adequate.					
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	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

Appearance Off-white to tan granules

Solubility in Water Disperses in water.

Vapour Pressure 3.3×10^{-7} mPa (25°C, metsulfuron methyl)

Partition co-efficient, n-octanol/water Kow Log P is 0.0018 (pH7, 25°C for metsulfuron methyl)

Flammability Non combustible material.

Other Information pKa is 3.8 (20°C, metsulfuron methyl)

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions. Hydrolyses at pH <7.

Hazardous Polymerization Hazardous polymerisation is not possible.

Hazardous Reaction Keep away from strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Inhalation Not a likely route of exposure when handling the concentrate. May cause irritation to mucous membranes.

Ingestion Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.

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Skin	May irritate the skin.
Eye	The concentrate may cause irritation of the eyes.
Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Acute Toxicity - Oral	LD50 (rat) >5000 mg/kg for metsulfuron methyl
Acute Toxicity - Dermal	LD50 (rabbit) >2000 mg/kg for metsulfuron methyl
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >5 mg/l for metsulfuron methyl
Eye Irritation	Mild eye irritant.
Skin Irritation	Mild skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.
Other Information	The Australian Acceptable Daily Intake (ADI) for metsulfuron methyl 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, 'ADI List', TGA, September 2005).

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 should be avoided, read the label for more information. Do NOT apply, drain or flush equipment on or near desirable trees or other plants, or on an area where their roots extend, or in locations where the chemical may be washed or moved into contact with their roots.
Persistence / Degradability	Half life in soil is typically 52 days.
Acute Toxicity - Fish	LC50 (96 hr) for rainbow trout and bluegill sunfish is >150 mg/l for metsulfuron methyl
Acute Toxicity - Daphnia	EC50 (48 hr) for daphnia is >120 mg/l for metsulfuron methyl.
Acute Toxicity - Other Organisms	The following data is for the active ingredient, metsulfuron methyl. Birds: Not toxic to birds. LD50 for mallard duck is >2510 mg/kg LD50 for bobwhite quail is >5620 mg/kg Bees: Not toxic to bees. LD50 >44.3 µg/bee.

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 (ChemCollect).
Container Disposal	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. Dispose of in accordance with local regulations. 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
DG Class	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated



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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 Not Scheduled

Packaging & Labelling READ SAFETY DIRECTIONS BEFORE OPENING OR USING

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: (03) 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...