

Infosafe No™ 3NU9A	Issue Date : November 2016	ISSUED by NUFARMNZ
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 Product Name **ASSOCIATE® 600 WDG**

## 1. Identification

<b>GHS Product Identifier</b>	ASSOCIATE® 600 WDG
<b>Product Code</b>	00074
<b>Product Type</b>	Selective herbicide
<b>Company Name</b>	Nufarm NZ
<b>Address</b>	6 Manu Street, Otahuhu Auckland 2024 New Zealand
<b>Telephone/Fax Number</b>	Tel: 0-9-270 4150 Fax: 0-9-270-4159
<b>Emergency phone number</b>	0800 651 911
<b>Email</b>	Info@nz.nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	For the control of gorse, broom, blackberry and other scrub and broadleaf weeds in forest site preparation, waste areas and pasture.
<b>Other Information</b>	This SDS 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. Hazard Identification

<b>Other Information</b>	6.3B skin irritant, 6.4A eye irritant, 9.1A aquatic toxicant, 9.2A soil toxicant, TOXICITY Harmful - may cause mild skin and eye irritation. ECOTOXIC Very toxic to aquatic organisms. Selective herbicide - very toxic to some plant species.
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## 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Solid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Kaolin clay	1332-58-7	10-30 %
	Other ingredients (non-hazardous)		Balance
	Metsulfuron-methyl	74223-64-6	600g/kg

## 4. First-aid measures

<b>First Aid Measures</b>	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.
<b>Inhalation</b>	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Skin</b>	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
<b>Eye contact</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms.
<b>First Aid Facilities</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Advice to Doctor</b>	Treat symptomatically.

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## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material. Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	Non-combustible. If involved in a major fire, could evolve oxides of carbon, hydrogen, nitrogen or sulphur.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind. Do not allow washings to reach sewage or effluent systems. Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.
<b>Hazchem Code</b>	2X
<b>Other Information</b>	Contain fire water. Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

## 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Wash area with water and detergent and absorb with inert material. Dispose of waste safely in an approved landfill.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers. This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Avoid generating dusts while handling the product and mixing. Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: This product must be under the control of an approved handler if applied in a wide dispersive manner, or used by a commercial contractor. TRACKING: Is not required RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3kg or more is applied within 24 hours. BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals.
<b>Other Information</b>	Stores containing 100kg of ASSOCIATE 600 WDG are subject to signage, and more than 100kg require emergency response plans. 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. Aggregate Storage Volume Thresholds: When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.

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<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear waterproof gloves, safety goggles, cotton overalls buttoned to the neck and wrist, and boots.
<b>Hygiene Measures</b>	Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

## 9. Physical and chemical properties

<b>Form</b>	Solid
<b>Appearance</b>	Off-white to tan granules
<b>Melting Point</b>	158°C (metsulfuron-methyl)
<b>Solubility in Water</b>	Disperses in water.
<b>pH</b>	4.2 (1%w/w)
<b>Vapour Pressure</b>	3.3 x 10 <sup>-7</sup> mPa (25°C, metsulfuron methyl)
<b>Volatile Component</b>	Non volatile
<b>Partition Coefficient: n-octanol/water</b>	Kow Log P is 0.0018 (pH7, 25°C, metsulfuron methyl)
<b>Density</b>	1.47
<b>Flammability</b>	Non combustible material.
<b>Other Information</b>	pKa is 3.8 (20°C, metsulfuron methyl) (WG) Water Dispersible Granule

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions of handling and storage. Hydrolyses at pH <7.
<b>Conditions to Avoid</b>	Direct sources of heat
<b>Possibility of hazardous reactions</b>	Keep away from strong acids, bases and oxidising materials.
<b>Hazardous Polymerization</b>	Hazardous polymerisation will not occur.
<b>Other Information</b>	Not a fire and explosion hazard. Like most organic powders, or crystals under severe dusting conditions this material may form explosive mixtures in air.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) >5000 mg/kg for metsulfuron-methyl
<b>Acute Toxicity - Dermal</b>	LD50 (rabbit) >2000 mg/kg for metsulfuron-methyl
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >5 mg/l for metsulfuron-methyl
<b>Ingestion</b>	Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.
<b>Inhalation</b>	Not a likely route of exposure when handling the concentrate. May cause irritation to mucous membranes. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.
<b>Skin</b>	May irritate the skin. Skin contact may aggravate existing skin disease.
<b>Eye</b>	The concentrate may cause irritation of the eyes.
<b>Skin Sensitisation</b>	Product is not a skin sensitiser.
<b>Chronic Effects</b>	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
<b>Serious eye damage/irritation</b>	Moderate eye irritant.
<b>Skin corrosion/irritation</b>	Mild skin irritant.

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**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: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2014).  
No oncogenic effects observed in 18-month mouse and 2 year rat feeding studies. Slightly decreased parental body weight at 5,000ppm. No effect on rat reproduction or lactation at any dose tested (highest dose tested Ovary Cell assay, or DNA rat liver repair assay; positive in the in vitro Chinese Hamster Cell cytogenetic assay but negative in the in vitro rat bone marrow cytogenetic assay. Not teratogenic or embryo-fetal toxic by gavage in rats (highest dose tested 1,000mg/kg) or by gavage in rabbits (highest dose tested 700mg/kg).

## 12. Ecological information

**Persistence and degradability** Half life in soil is typically 52 days.  
Metsulfuron-methyl is not rapidly degradable.

**Mobility** Metsulfuron-methyl is relatively mobile in most soils.

**Bioaccumulative Potential** Metsulfuron-methyl is not bioaccumulative. log Kow = 0.014

**Other Precautions** Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

**Environmental 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.

**Acute Toxicity - Fish** LC50 (96hr) for rainbow trout and bluegill sunfish is >150 mg/l for metsulfuron-methyl

**Acute Toxicity - Daphnia** EC50 (48hr) for daphnia is >150 mg/l for metsulfuron-methyl.

**Acute Toxicity - Algae** EC50 (96h) Lemna minor Duckweed 0.4µg/L for metsulfuron-methyl  
EC50 (72h) Green algae 0.45mg/L for metsulfuron-methyl  
Chronic NOEC Lemna Gibba 0.16µg/L for metsulfuron-methyl

**Acute Toxicity - Other Organisms** Birds: Not toxic to birds;  
Oral LC50 Mallard duck >2,510mg/kg metsulfuron-methyl  
Dietary LC50 (8d) Bobwhite quail & Mallard Duck >5,620mg/kg for metsulfuron-methyl  
Bees: Non-toxic to bees;  
LD50 (oral) >44.3µg/bee; (contact) >50µg/bee for metsulfuron-methyl  
Rice: EC25 (16d) 0.00015mg/hectare

## 13. Disposal considerations

**Product Disposal** Dispose of product only by using according to the label, or at an approved landfill.

**Container Disposal** Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

## 14. Transport information

**Transport Information** It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**U.N. Number** 3077

**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (mesulfuron-methyl, 60%)

**Transport hazard class(es)** 9

**Hazchem Code** 2X

**Packaging Method** -

**Packing Group** III

**EPG Number** -

**IERG Number** 47



# Safety Data Sheet

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**IMO Marine Pollutant** Yes. Environmentally Hazardous Substance mark required.  
**IMDG EMS** F-A, S-F  
**Other Information** Do not carry more than 3kg of ASSOCIATE 600 WDG on a passenger service vehicle.  
Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

## 15. Regulatory information

**National and or International Regulatory Information** Registered pursuant to the ACVM Act 1997, No. P5957  
See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions  
Approved pursuant to the HSNO Act 1996, Approval Code HSR000242  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.  
**Packaging & Labelling** ECOTOXIC  
**Hazard Rating Systems** NFPA/HMIS: 2-1-1

## 16. Other Information

**Contact Person/Point** IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE  
24Hr Tollfree Emergency No: 0800 651 911  
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766  
**Revisions Highlighted** 5 yearly review carried out. Various changes and updates made to document.  
**Other Information** Supersedes SDS issued November 2011  
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