

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

1. Identification

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

Other Information	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

Chemical Characterization	Solid		
Ingredients	<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

First Aid Measures	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.
Inhalation	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.
Ingestion	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.
Skin	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.
Eye contact	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.
First Aid Facilities	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Advice to Doctor	Treat symptomatically.

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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. Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	Non-combustible. If involved in a major fire, could evolve oxides of carbon, hydrogen, nitrogen or sulphur.
Special Protective Equipment for fire fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	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.
Hazchem Code	2X
Other Information	Contain fire water. Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

6. Accidental release measures

Spills & Disposal	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.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	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

Precautions for Safe Handling	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.
Conditions for safe storage, including any incompatibilities	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.
Other Information	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

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

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Personal Protective Equipment	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.
Hygiene Measures	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

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

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage. Hydrolyses at pH <7.
Conditions to Avoid	Direct sources of heat
Possibility of hazardous reactions	Keep away from strong acids, bases and oxidising materials.
Hazardous Polymerization	Hazardous polymerisation will not occur.
Other Information	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

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
Ingestion	Low toxicity. However, swallowing large amounts of concentrate may cause nausea and vomiting.
Inhalation	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.
Skin	May irritate the skin. Skin contact may aggravate existing skin disease.
Eye	The concentrate may cause irritation of the eyes.
Skin Sensitisation	Product is not a skin sensitiser.
Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Serious eye damage/irritation	Moderate eye irritant.
Skin corrosion/irritation	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 for registration conditions
Approved pursuant to the HSNO Act 1996, Approval Code HSR000242
See 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
...End Of MSDS...

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