Product Name: GENFARM MESOSULFURON-METHYL OD HERBICIDE

APVMA Approval No: 92939 / 138358

RLP APPROVED

Label Name:	GENFARM MESOSULFURON-METHYL OD HERBICIDE

Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements:	LABEL A ACTIVE CONSTITUENT: 30 g/L MESOSULFURON-METHYL CROP SAFENER: 90 g/L MEFENPYR-DIETHYL SOLVENTS: 250 g/L HYDROCARBON LIQUID LABEL B ACTIVE CONSTITUENTS: 30 g/L MESOSULFURON-METHYL 90 g/L MEFENPYR-DIETHYL SOLVENT: 200 g/L AROMATIC HYDROCARBON

Mode of Action:	GROUP 2 HERBICIDE

Statement of Claims:	For the post-emergent control of wild oats and annual phalaris, and suppression of brome grass, barley grass and annual ryegrass in wheat.

Net Contents:	5 L - 110 L

Restraints:	This section contains file attachment.

Directions for Use:	This section contains file attachment.

Other Limitations:	

Withholding Periods:	WITHHOLDING PERIODS Harvest: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION Grazing/Stockfood: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION

Trade Advice:	

General Instructions:	This section contains file attachment.

Resistance Warning:	RESISTANT WEEDS WARNING GROUP 2 HERBICIDE GENFARM MESOSULFURON-METHYL OD HERBICIDE is a member of the sulfonylurea group of herbicides and has the inhibitor of ALS mode of action. For weed resistance management GENFARM MESOSULFURON-METHYL OD HERBICIDE is a Group 2 herbicide. Some naturally occurring weed biotypes resistant to GENFARM MESOSULFURON-METHYL OD HERBICIDE, and other Group 2 herbicides, may exist through normal genetic variability in any weed population. These resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by GENFARM MESOSULFURON-METHYL OD HERBICIDE or other Group 2 herbicides. Do not rely exclusively on GENFARM MESOSULFURON-METHYL OD HERBICIDE for weed control. Use as part of an integrated weed management program involving herbicides with other modes of action and non-chemical methods of control. CropLife Australia resistance management strategies are available from your local agricultural chemical supplier. Refer to these strategies for details of how to manage the build up of resistant weeds on your farm. Since occurrence of resistant weeds is difficult to detect prior to use Nutrien Ag Solutions Limited accepts no liability for any losses that may result from the failure of GENFARM MESOSULFURON-METHYL OD HERBICIDE to control resistant weeds.

Precautions:	Re-entry Period DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each days use.

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic plants and algae. DO NOT contaminate streams, rivers or watercourses with the chemical or used container. PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants / crops, cropping lands or pastures. Direct spray contact or even slight drift may cause severe injury or destruction of any growing crop or other desirable plants including trees and native vegetation. DO NOT use when breeze is blowing towards nearby desirable plants.

	Undersown Clovers and Medics DO NOT apply to crops undersown with legumes.

Storage and Disposal:	Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product. For drumMUSTER containers: This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate or any undiluted chemical according to state legislative requirements. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately. For REFILLABLE containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. SMALL SPILL MANAGEMENT Wear protective equipment (see SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed and contain in a refuse vessel for disposal (see STORAGE AND DISPOSAL section). If necessary, wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal.

Safety Directions:	Harmful if inhaled. Will damage the eyes. Will irritate the skin. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. DO NOT inhale vapour or spray mist. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow length chemical resistance gloves and face shield. Wash hands after use. After each day’s use, wash gloves, face shield and contaminated clothing.

First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766. If swallowed, do NOT induce vomiting.

First Aid Warnings:	

RESTRAINTS

DO NOT use if rainfall or irrigation is to occur within 8 hours of application.

DO NOT apply to crops undersown with legumes.

DO NOT apply to wheat before the 3-leaf stage (Z13).

DO NOT apply without surfactant/wetting agent, as detailed under 'Use of Surfactant/Wetting Agent' in the General Instructions

DO NOT apply to paddocks where there is a high risk of weeds resistant to Group 2 herbicides.

DO NOT apply to the wheat variety Brookton

DO NOT apply by aerial spraying.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations.

Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'MANDATORY BUFFER ZONES') are observed.

Buffer zones for boom sprayers

Application rate	Mandatory downwind buffer zones		
	Natural aquatic areas	Vegetation areas	Bystander areas
Up to maximum label rate	3 metres		0 metres

DIRECTIONS FOR USE

Note: GENFARM MESOSULFURON-METHYL OD HERBICIDE is a sulfonylurea herbicide. GENFARM MESOSULFURON-METHYL OD HERBICIDE will substantially reduce the growth of many weeds rather than give complete plant kill. Refer to the critical comments in the Directions for Use Table below, for directions on specific weeds.

CROP	WEEDS	WEED STAGE	RATES/ha	CRITICAL COMMENTS
Wheat	Brome grass (great brome, *Bromus diandrus*)	1 leaf to 3 leaf, 1 tiller (Z11 to Z13, 21)	330 mL	**Suppression of brome grass.** Will substantially reduce the growth of brome grass and its ability to compete with the crop and will reduce seed set but may not give a significant reduction in plant numbers. Apply generally within 4 to 7 weeks after sowing. Apply when the majority of brome grass is at the 1 leaf to 3 leaf, 1 tiller stage (Z11 to Z13, 21). Efficacy on larger plants that may have emerged before the crop may be poor. Do not use for suppression of dense brome grass populations (>150 plants/m2). **Suppression of brome grass may be improved with the use of a crop oil concentrate at 1% v/v.** **Refer to 'Use of Surfactant/Wetting Agent' under General Instructions.**
	Annual ryegrass (*Lolium rigidum*)	1 leaf to 3 leaf, 1 tiller (Z11 to Z13,21)		**Suppression of annual ryegrass.** Will substantially reduce the growth of annual ryegrass and its ability to compete with the crop and will reduce seed set but may not give a significant reduction in plant numbers. Apply generally within 4 to 7 weeks after sowing. Do not use for control of dense annual ryegrass populations (>200 plants/m^2).
	Barley grass (*Hordeum leporinum*)	1 to 4 leaf, 2 tillers (Z11 to Z14, 22)		**Suppression of barley grass.** Will substantially reduce the growth of barley grass and its ability to compete with the crop and will reduce seed set but may not give a significant reduction in plant numbers. Apply generally within 4 to 7 weeks after sowing. Apply when the majority of barley grass is less than the early tillering stage (Z14, 22). Efficacy on larger plants may be poor. **Suppression of barley grass may be improved with the use of a crop oil concentrate at 1% v/v.** **Refer to 'Use of Surfactant / Wetting agent' under General Instructions.**
	Wild oats (*Avena* spp.)	1 leaf to 3 leaf, 1 tiller (Z11 to Z13, 21)		Apply generally within 4 to 7 weeks after sowing. Do not use for control of dense wild oat populations (>150 plants/m^2). Application to wild oats at more advanced growth stages or to dense populations will result in suppression of wild oats only. Growth of wild oats and the ability to compete with the crop will be reduced but plants numbers may not be significantly reduced.
	Annual phalaris, paradoxa grass (*Phalaris paradoxa* only)	1 leaf to 3 leaf, 1 tiller (Z11 to Z13, 21)		Apply generally within 4 to 7 weeks after sowing. Do not use for control of dense Phalaris populations (>300 plants/m^2). Other Phalaris species may not be adequately controlled with GENFARM MESOSULFURON-METHYL OD HERBICIDE.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

GENERAL INSTRUCTIONS

GENFARM MESOSULFURON-METHYL OD HERBICIDE is a selective sulfonylurea herbicide. It is predominantly a foliar herbicide with less activity via the soil. GENFARM MESOSULFURON-METHYL OD HERBICIDE will not reliably control weeds that emerge after spraying. Results are best under good growing conditions and application to weeds or crop under stress should be avoided.

Use of Surfactant / Wetting Agent

It is recommended that GENFARM MESOSULFURON-METHYL OD HERBICIDE be applied with the addition of Genwet 1000 at 0.25% v/v or either of a crop oil concentrate at 1% v/v. When applying GENFARM MESOSULFURON-METHYL OD HERBICIDE for suppression of brome grass or barley grass, only use crop oil concentrates.

The suitability of other non-ionic wetting agents or crop oil concentrates should be confirmed with Nutrien Ag Solutions prior to mixing with GENFARM MESOSULFURON-METHYL OD HERBICIDE.

Note: Crop effects (discolouration and slowed development) may be increased with the use of crop oil spray adjuvants, however under normal growing conditions this should not result in any yield loss.

Crop Safety

- Do not apply to any crop other than wheat.
- Do not apply to the wheat variety Brookton.
- Westonia wheat may show reduced tolerance to GENFARM MESOSULFURON-METHYL OD HERBICIDE in some situations, especially during a dry finish to the season. Ensure adequate crop nutrition and that crop is at least the 3 leaf (Z13) stage at application.
- Wheat should be at the 3 leaf stage (Z13 growth stage), or more advanced, before application of GENFARM MESOSULFURON-METHYL OD HERBICIDE.
- Do not apply to wheat that is physically damaged (e.g. by hail, wind, insect attack).
- Some crop yellowing and growth retardation may occur within 5 weeks of application. Growth retardation will be increased if the crop is affected by root disease (e.g. cereal cyst nematode, rhizoctonia, take-all (haydie)), nutritional stress, waterlogging, drought stress, excessively cold conditions or previous herbicide treatment.
- Application to very dry sandy soils followed by soaking rainfall may cause significant crop effects.
- Crop damage will be increased in highly alkaline soils (soil pH > 8.5 as determined by soil in water suspension).
- Do not apply to crops not actively growing due to cold and wet conditions or drought stress.
- Do not overlap when spraying or double spray corners.

Crop Rotation Recommendations

Minimum re-cropping intervals apply for all crops following GENFARM MESOSULFURON-METHYL OD HERBICIDE application.

The application of a Group 2 herbicide in the crop following GENFARM MESOSULFURON-METHYL OD HERBICIDE use may result in increased crop effects. Consult the manufacturer of GENFARM MESOSULFURON-METHYL OD HERBICIDE for advice in these situations.

Rainfall of less than 250 mm following GENFARM MESOSULFURON-METHYL OD HERBICIDE use will result in extended re-cropping intervals for winter crops sown the following season.

Patchy rain, with extended dry periods may also result in extended recropping intervals, even when rainfall exceeds 250 mm. If in doubt, seek specialist advice.

Rainfall of less than 500 mm following GENFARM MESOSULFURON-METHYL OD HERBICIDE use may result in extended re-cropping intervals for summer crops sown in the following year.

Use on soils with a pH greater than 8.5 (soil in water) has not been extensively tested and is not recommended. For advice on crops not listed below, contact your local reseller or Nutrien Ag Solutions representative.

CROP	MINIMUM RECROPPING INTERVAL	NOTES/COMMENTS
Winter crops		
Wheat	1 day	
Barley	9 months	
Oats	9 months	
Triticale	9 months	
Faba beans	11 months	
Canola	9 months	
Chickpeas	9 months	
Lentils	11 months	
Lucerne, sub clover	21 months	In soils of pH > 8.0 (1:5 water suspension) and under low rainfall conditions some slight discolouration may occur, however establishment and growth through the season is generally not affected
	9 months	In soils of pH < 8.0 (1:5 water suspension) and under conditions where good seasonal rainfall has occurred between spraying and sowing (i.e. more than 250 mm)
Lupins	9 months	
Medic	21 months	
Peas	9 months	
Vetch	9 months	
Summer crops		
Cotton	12 months	
Maize	12 months	
Mungbeans	12 months	
Sorghum	12 months	
Soybeans	12 months	
Sunflowers	12 months	

Application

Ensure that complete and even spray coverage of all weeds is achieved.

Mixing

Half fill the spray tank with water, then with agitators in motion, add the correct amount of GENFARM MESOSULFURON-METHYL OD HERBICIDE directly into the spray tank. Add other relevant compatible herbicides, then wetting agent or crop oil as recommended. Complete filling the tank with agitators in motion. Agitation must continue before and during spraying.

Equipment

Ground Sprayers

Standard boom sprayers only are recommended and must be fitted with by-pass or mechanical agitation. It is recommended that 50 to 80 L water/ha is applied with a with a medium droplet size. The use of flat fan nozzles is recommended.

Nozzles creating coarse or very coarse spray qualities have not been thoroughly investigated at this time and cannot be recommended. Contact your Nutrien Ag Solutions representative for advice before applying this product through such nozzles.

Aircraft

Do not apply GENFARM MESOSULFURON-METHYL OD HERBICIDE by aircraft.

Sprayer Clean Up

The sprayer must be decontaminated before being used to spray crops other than cereals.

Ensure that the following operation is carried out in an area that is clear of waterways, desirable vegetation and tree roots, and preferably in an area where drainings can be contained.

1. Drain sprayer completely and wash out tank, boom and hoses with clean water.
2. Drain again.
3. Fill the tank with clean water and add 300 mL of chlorine bleach (containing 4% chlorine) per 100 L of water with agitation running.
4. Flush some bleach solution through booms and hoses and allow remainder to agitate in tank for 10 minutes.
5. Remove nozzles and filters and leave to soak in a bleach solution of 500 mL per 10 L of water while tank cleaning is in progress.
6. Drain tank and repeat the procedure of flushing with bleach solution.
7. Flush the tank, boom and hoses with clean water.