

PMRA Approved Label, BR, 2020-0148, 2020-01-24
Updated as per approved precedent label 2017-5914, 2018-09-07

(jug label)

GROUP 1 HERBICIDE

MARSHALL

EMULSIFIABLE CONCENTRATE

FOR SALE FOR USE ON CAMELINA, CANOLA, FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES), SUNFLOWERS, SOYBEANS (INCLUDING VARIETIES DESIGNATED "STS®"), SEED ALFALFA, LENTILS, PEAS (FIELD AND PROCESSING), SEEDLING LEGUMES FOR SEED PRODUCTION, SEEDLING OR ESTABLISHED CREEPING RED FESCUE FOR SEED PRODUCTION, DRY FABA BEANS (DRY BROAD BEANS), AND NARROW LEAF LUPIN, ESTABLISHED RED AND ALSIKE CLOVER FOR SEED PRODUCTION, SUGARBEETS, AND SNAP BEANS; DRY COMMON BEANS; FOR USE IN WESTERN CANADA ON CHICKPEAS; CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD (INCLUDING CANOLA QUALITY BRASSICA JUNCEA); YELLOW AND BROWN MUSTARD; CRAMBE; ETHIOPIAN MUSTARD (BRASSICA CARINATA), THE FOLLOWING BEANS IN SOUTHERN ONTARIO (LIMA, ADZUKI AND MUNG BEANS); RUTABAGAS IN ONTARIO AND QUEBEC; AND ON INDUSTRIAL HEMP GROWN FOR FIBRE, SEED AND OIL PRODUCTION AND CUCURBIT VEGETABLES IN CANADA.

AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: Quizalofop P-ethyl 96 g/L

REGISTRATION NO. 33681 PEST CONTROL PRODUCTS ACT

DANGER – CORROSIVE TO EYES
WARNING - SKIN IRRITANT
POTENTIAL SKIN SENSITIZER

NET CONTENTS: 1 L to 1500 L

Nissan Chemical Corporation
c/o Nissan Chemical America Corporation
10333 Richmond Avenue, Suite 1100,
Houston TX 77042

Distributed by:
Winfield United Canada, ULC
101-302 Wellman Lane
Saskatoon, Saskatchewan
Canada S7T 0J1

Product Information : 1-800-883-1844

For Medical Emergencies : 1-888-478-0798 (24 hours)

For Spills, Leaks or Fire : 1-800-424-9300 (24 hours)

PRECAUTIONS:

- **KEEP OUT OF REACH OF CHILDREN**
- **DANGER – CORROSIVE TO EYES**
- **WARNING - SKIN IRRITANT**
- **POTENTIAL SKIN SENSITIZER**
- May be harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation.
- Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing vapours or spray mist. Use adequate ventilation.
- When using, do not eat, drink or smoke. Wash skin thoroughly with soap and water after handling.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, school and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days following application for scouting activities in camelina. For all other crops, do not enter or allow worker entry into treated area during the REI of 12 hours.

PERSONAL PROTECTIVE EQUIPMENT

- Wear goggles or face shield, chemical resistant gloves and coveralls over long-sleeved shirt and long pants during mixing, loading, clean up and repair.
- For worker protection during application, wear a hat and coveralls over long-sleeved shirt and long pants.
- Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca

ENVIRONMENTAL PRECAUTIONS:

This product contains a petroleum distillate, which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning of equipment.

TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
TOXIC to aquatic organisms.

FIRST AID:

IF SWALLOWED:

Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF IN EYES:

Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or the product name and Pest Control Product Registration number with you when seeking medical attention.

For medical emergencies call 1-888-478-0798 (24 hours).

TOXICOLOGICAL INFORMATION: THIS PRODUCT CONTAINS PETROLEUM DISTILLATES.

Vomiting may cause aspiration pneumonia. Treat symptomatically.

STORAGE:

Store product in original container only, away from fertilizer, seed, food or feed. Not for use or storage in or around the home. Keep container closed. **DO NOT FREEZE.**

DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under *the Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

MARSHALL

EMULSIFIABLE CONCENTRATE

FOR SALE FOR USE ON CAMELINA, CANOLA, FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES), SUNFLOWERS, SOYBEANS (INCLUDING VARIETIES DESIGNATED "STS®"), SEED ALFALFA, LENTILS, PEAS (FIELD AND PROCESSING), SEEDLING LEGUMES FOR SEED PRODUCTION, SEEDLING OR ESTABLISHED CREEPING RED FESCUE FOR SEED PRODUCTION, DRY FABA BEANS (DRY BROAD BEANS), AND NARROW LEAF LUPIN, ESTABLISHED RED AND ALSIKE CLOVER FOR SEED PRODUCTION, SUGARBEETS, AND SNAP BEANS; DRY COMMON BEANS; FOR USE IN WESTERN CANADA ON CHICKPEAS; CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD (INCLUDING CANOLA QUALITY BRASSICA JUNCEA); YELLOW AND BROWN MUSTARD; CRAMBE; ETHIOPIAN MUSTARD (BRASSICA CARINATA), THE FOLLOWING BEANS IN SOUTHERN ONTARIO (LIMA, ADZUKI AND MUNG BEANS); RUTABAGAS IN ONTARIO AND QUEBEC; AND ON INDUSTRIAL HEMP GROWN FOR FIBRE, SEED AND OIL PRODUCTION AND CUCURBIT VEGETABLES IN CANADA.

AGRICULTURAL

ACTIVE INGREDIENT: Quizalofop-P-ethyl 96 g/L

REGISTRATION NO. 33681
PEST CONTROL PRODUCTS ACT

READ THE LABEL AND THIS BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

DANGER – CORROSIVE TO EYES
WARNING – SKIN IRRITANT
POTENTIAL SKIN SENSITIZER

NET CONTENTS: 1 TO 1500 L

Nissan Chemical Corporation
c/o Nissan Chemical America Corporation
10333 Richmond Avenue, Suite 1100,
Houston TX 77042

Distributed by:
Winfield United Canada, ULC

101-302 Wellman Lane
Saskatoon, Saskatchewan
Canada S7T 0J1

Product Information: 1-800-883-1844

For Medical Emergencies: 1-888-478-0798 (24 hours)

For Spills, Leaks or Fire: 1-800-424-9300 (24 hours)

SAFETY INFORMATION

PRECAUTIONS:

- **KEEP OUT OF REACH OF CHILDREN**
- DANGER – CORROSIVE TO EYES
- WARNING - SKIN IRRITANT
- POTENTIAL SKIN SENSITIZER
- May be harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation.
- Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing vapours or spray mist. Use adequate ventilation.
- When using, do not eat, drink or smoke. Wash skin thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT

- Wear goggles or face shield, chemical resistant gloves and coveralls over long-sleeved shirt and long pants during mixing, loading, clean up and repair.
- For worker protection during application, wear a hat and coveralls over long-sleeved shirt and long pants.
- Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse.

FIRST AID:

IF SWALLOWED:

Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF IN EYES:

Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or the product name and Pest Control Product Registration number with you when seeking medical attention.

For medical emergencies call 1-888-478-0798 (24 hours)

TOXICOLOGICAL INFORMATION: THIS PRODUCT CONTAINS PETROLEUM DISTILLATES.
Vomiting may cause aspiration pneumonia. Treat symptomatically.

USE PRECAUTIONS

IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- Prevent drift of spray to desirable plants.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, school and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- Do not contaminate any body of water including irrigation water that may be used on other crops.

TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
TOXIC to aquatic organisms.

Use caution when handling MARSHALL as accidental spills or splashes may harm the finish on painted equipment.

ENVIRONMENTAL PRECAUTIONS:

This product contains a petroleum distillate, which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning of equipment. This product is toxic to fish. Overspray or drift to fish-bearing water must be avoided. Overspray or drift onto important wildlife habitats such as shelterbelts, wetlands, sloughs or dry slough borders and woodlots should be avoided.

USER PRECAUTIONS:

- Do not apply to soybeans within 80 days of harvest.
- Do not apply to canola within 64 days of harvest.
- Do not apply to flax within 82 days of harvest.
- Do not apply to sunflowers within 60 days of harvest.
- Do not apply to lentils or peas (field and processing) within 65 days of harvest.
- DO not apply to industrial hemp grown for fibre, seed and oil within 73 days of harvest.
- Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days following application for scouting activities in camelina. For all other crops, do not enter or allow worker entry into treated area during the REI of 12 hours.
- Do not apply MARSHALL to plants stressed by severe conditions such as drought, low fertility, or cool weather as control of weeds may be reduced.
- Do not apply MARSHALL to crops stressed by severe conditions such as drought, low fertility, saline soils, water logged soils (soils at or near field capacity), disease or insect damage as crop injury may result.
- Drought, disease or insect damage following application may also result in crop injury.
- Rainfall within 1 hour of application may reduce effectiveness of the spray.
- Avoid drift to other crops and non-target areas. Grass crops such as corn and wheat etc. are highly sensitive to MARSHALL.
- Do not contaminate irrigation water.
- **DO NOT FREEZE**

Consult the tank mix partner labels and follow the most restrictive instructions that appear on all product labels.

CAUTION:

Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca.

GENERAL INFORMATION

MARSHALL is a selective, post-emergence herbicide for the control of annual and perennial grasses in the following crops:

- Camelina
- Canola
- Flax, (including low linolenic acid varieties)
- Sunflowers
- Soybeans (including varieties designated "STS[®]")
- Seed Alfalfa
- Lentils
- Peas (field and processing)
- Seedling legumes for seed production
- Seedling or established creeping red fescue for seed production
- Dry faba beans (dry broad beans)
- Narrowleaf lupin
- Established red and alsike clove for seed production
- Sugarbeets
- Snap Beans
- Dry Common Beans
- Chickpeas (western Canada only)
- Condiment and oilseed type Oriental Mustard (including Brassica Juncea), Yellow and brown mustard and Crambe
- Ethiopian mustard (brassica carinata)
- Lima, adzuki and Mung Beans (southern Ontario only)
- Rutabagas (Ontario and Quebec only)
- Industrial Hemp grown for fibre, seed and oil production
- Cucurbit vegetables

Recommended rates and timing for MARSHALL application will provide control of the emerged grasses present. MARSHALL does not control sedges or broadleaf weeds.

Grass crops, including wheat, barley, rye, oats, and corn are highly sensitive to MARSHALL.

When not in use, keep container closed to prevent evaporation or loss through spillage.

Under certain environmental conditions, minor leaf spotting may occur on soybeans. New growth is unaffected and there is no adverse effect on crop yield.

MODE OF ACTION

MARSHALL is a systemic herbicide which is rapidly absorbed and readily translocated from the treated

foliage to the root systems and growing points of the plant.

Treated plants show a reduction in growth and a loss of competitiveness. An early yellowing or browning of the younger plant tissues is followed by a progressive collapse of the remaining foliage. These symptoms will generally be observed in one to three weeks depending on the grass species treated and the environmental conditions.

SPRAY PREPARATION

GROUND APPLICATION: (For MARSHALL used alone or in tank mixes)

Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray. Apply a minimum of 100 L/ha total spray volume. Use flat fan nozzles. DO NOT USE FLOOD JET NOZZLES.

Use 50 mesh screens or larger. A spray pressure of 210-275 kPa is recommended. Under heavy weed pressure, use increased volumes up to 400 L/ha total spray volume.

Avoid overlapping. Shut off spray booms while starting, turning, slowing or stopping to prevent over application.

Use spray preparation of MARSHALL within 24 hours or product degradation may occur. If spray preparation is left without agitation, thoroughly agitate before using.

Do not apply when environmental conditions such as wind speed, temperature, relative humidity, etc. are favourable for drift to occur.

Do not apply to terrain where there is a potential for surface run-off to enter aquatic systems.

NOTE: Extreme care must be taken to prevent drift to desirable plants or non-target agricultural land.

AERIAL APPLICATION: (Only for MARSHALL used alone)

Apply only by fixed-wing or rotary aircraft equipment, which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Use Precautions:

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides. Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed. Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

Operator Precautions:

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot have communication capabilities at each treatment site at the time of application. The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label. All personnel on the job site must wash hands and

face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly. Do not use human flaggers.

Product Specific Precautions:

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-883-1844 or obtain technical advice from the distributor or your provincial agricultural representative.

Application of this specific product must meet and/or conform to the following:

- Apply a minimum of 25 L of spray volume per hectare.
- Apply a maximum of 50 L of spray volume per hectare.

MIXING INSTRUCTIONS:

1. Make sure that spray tank is thoroughly cleaned before mixing.
2. Fill tank half full with water. KEEP AGITATOR RUNNING.
3. If tank mixing MARSHALL with another pesticide and/or adjuvant, use the following sequence:
 - a) Water conditioning agents
 - b) Wettable Powders (WP)
 - c) Dry Granules (WDG)
 - d) Suspension Concentrates (SC) or Flowables
 - e) Emulsifiable concentrates (EC) or oil based products (MARSHALL)
 - f) Surfactants (NIS, COC, MSO)

Ensure that the herbicide is completely mixed before proceeding to the next step.

4. Add the rest of the required water to the tank. Mix well before applying to the crop.

On repeat tank loads, ensure that the amount of spray solution left in the tank from the previous load is less than 10% of volume about to be mixed.

Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, MARSHALL is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to MARSHALL and other Group 1 herbicides. The resistance biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of MARSHALL or other Group 1 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact your local Nissan representative or 1-800-883-1844 for further information

DIRECTIONS FOR USE

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

Aerial application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when the wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing-or rotor- span.

Buffer Zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Use Rate		Buffer Zones (metres) (Required for the Protection of:		
			Aquatic Habitat of Depths		Terrestrial Habitat
			Less than 1 m	Greater than 1 m	
Field sprayer*	Field crops up to 0.75 L/ha		1	0	3
Aerial	Field crops at 0.38 L/ha	Fixed Wing	0	0	70
		Rotary Wing	0	0	55
	Field crops at 0.5 L/ha	Fixed Wing	0	0	85
		Rotary Wing	0	0	70
	Field crops at 0.75 L/ha	Fixed Wing	1	0	125
		Rotary Wing	1	0	100

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where the individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

POSTEMERGENCE APPLICATIONS - CANOLA, FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES), SUNFLOWERS (2-8 LEAF), SOYBEANS (INCLUDING VARIETIES DESIGNATED "STS"), SEED ALFALFA, LENTILS AND PEAS (FIELD AND PROCESSING) AND SEEDLING LEGUMES FOR SEED PRODUCTION; FOR USE IN WESTERN CANADA ON CONDIMENT AND OILSEED TYPE ORIENTAL MUSTARD (INCLUDING CANOLA QUALITY Brassica juncea), YELLOW AND BROWN MUSTARD; AND CRAMBE:

Surfactant

SURFACTANT	RATE
Crop Oil Concentrate	5 – 10 L per 1000 L spray solution
Merge*	5 – 10 L per 1000 L spray solution
MSO	5 – 10 L per 1000 L spray solution
Sure-Mix*	0.5% (0.5 L per 100 L spray solution)
NIS	0.25 – 0.5% v/v

MARSHALL must be applied with a surfactant.

For optimal performance a high quality Crop Oil Concentrate is preferred. When tankmixing with other herbicides select an adjuvant recommended for use with both products.

Use the higher rate when wild oats or quackgrass are the main target weeds, or under conditions not conducive to good growth.

Follow instructions as outlined in Mixing Instructions section of this label.

Apply the specified rate of MARSHALL with a surfactant at the leaf stage of the grass weed indicated in the table below

RATE	WEEDS CONTROLLED	WEED LEAF STAGE
0.38 L/ha	green foxtail	2 leaf to early tillering
	volunteer barley	2 leaf to early tillering
	volunteer corn	2 – 6 leaf
	volunteer oats	†2 leaf to early tillering
	volunteer wheat	2 leaf to early tillering
	wild oats	1 – 5 leaf without tillers
0.50 L/ha	Those controlled by 0.38 L/ha and:	
	barnyard grass	2 leaf to early tillering
	wild oats	†1 – 5 leaf to early tillering (up to two tillers)
	fall panicum	2 leaf to early tillering
	old witchgrass	2 leaf to early tillering
	proso millet	2 leaf to early tillering
	yellow foxtail	2 leaf to early tillering
	foxtail barley	3 leaf to 4 leaf + tillers
	downy brome	2-5 leaf
Japanese brome	2-5 leaf	
0.50 L/ha	Weeds Suppressed	2-6 leaf

	quackgrass	
0.75 L/ha	quackgrass	2 – 6 leaf

†best results on volunteer/wild oats if application is made before tillering begins

NOTE: Use the higher rate of XA Oil Concentrate or Merge when wild oats or quackgrass are the main target weeds, or under conditions not conducive to good growth.

When using a broadleaf only herbicide, wait a minimum of 24 hours after the MARSHALL application to apply the broadleaf herbicide or wait 7 days after the broadleaf application to apply MARSHALL.

CROP SPECIFIC RECOMMENDATIONS

Use MARSHALL with tank mix product listed or other registered products which would be appropriate.

NOTE - Refer to:

- DIRECTIONS FOR USE section of this label for a list of surfactant options
- DIRECTIONS FOR USE section of this label for a complete list of grassy weeds and their stages of control
- USE PRECAUTIONS section of this label for additional application and/or use precaution instructions
- SPRAY PREPARATION section of this label for mixing instructions.

CROP	RATE	COMMENTS
Seed Alfalfa	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • One application per season only
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Flax (including low linolenic acid varieties)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • One application per season only
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Lentils, Peas (field & processing)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • One application per season only
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Chickpeas (western Canada only)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • One application per season only • Use a minimum of 100 L of water/ha
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for	

CROP	RATE	COMMENTS
	recommendations)	
Oriental Mustard (condiment and oilseed type (INCLUDING CANOLA QUALITY Brassica juncea), AND BROWN MUSTARD)) (western Canada only)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • One application per season only
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • One application per season only • Refer to the Muster* Toss-N-Go* label for broadleaved weeds controlled • No additional surfactant is needed when Merge* or Sure-Mix* is used • For best results observe all timings, restrictions and recommendations specified on both the MARSHALL and Muster* Toss-N-Go* labels • IMPORTANT: carefully follow sprayer clean-out directions on the Muster* Toss-N-Go* label • NOTE: Stinkweed is controlled by 20 g/ha of Muster* Toss-N-Go* when tank mixed with MARSHALL and Merge* or Sure-Mix*
	0.38 – 0.50 L/ha MARSHALL	
	PLUS	
20 g/ha Muster* Toss-N-Go*		
PLUS		
Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)		
Canola (rapeseed)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • One application per season only
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
	0.38 – 0.5 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • One application per season only • Refer to the Muster* Herbicide label for broadleaved weeds controlled • No additional surfactant is needed when Merge* or Sure-Mix* is used • For best results observe all timings, restrictions and recommendations specified on both the MARSHALL and Muster* Herbicide labels • IMPORTANT: carefully follow sprayer clean-out directions on the Muster* Herbicide label • NOTE: Stinkweed is controlled by 20 g/ha of Muster* Herbicide when tank mixed with MARSHALL and Merge* or Sure-Mix*
	PLUS	
	20 – 30 g/ha Muster* Herbicide	
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
TRIBENURON- METHYL	0.5 – 1 L/ha MARSHALL	<ul style="list-style-type: none"> • Apply at the 2-8 leaf stage of the tribenuron-methyl tolerant sunflowers (e.g. ExpressSun™ sunflowers SU7)
	PLUS	

CROP	RATE	COMMENTS
TOLERANT SUNFLOWERS	15 g/ha EXPRESS® SG Herbicide	<p>and at the leaf stage of the grass and broadleaf weeds indicated below.</p> <ul style="list-style-type: none"> Application should be made using a minimum spray volume of 55 L/ha. Weed Controlled: Lamb's-quarters Weed Suppressed: Wild Buckwheat Pluse all weeds according to rates of use on this label.
	PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Soybeans (including varieties designated "STS")	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND OR AERIAL APPLICATION One application per season only GROUND APPLICATION ONLY One application per season only Refer to the Classic* Herbicide label for general information, use precautions, a list broadleaved weeds controlled and the most appropriate application timings. If the timings for grassy and broadleaf weeds do not coincide, a sequential application of the grass and
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
	0.38 – 0.63 L/ha MARSHALL	
	PLUS	
	36 g/ha Classic* Herbicide	<ul style="list-style-type: none"> If the timings for grassy and broadleaf weeds do not coincide, a sequential application of the grass and
	PLUS	
	Surfactant (see	

CROP	RATE	COMMENTS
	DIRECTIONS FOR USE section of this label for recommendations)	<ul style="list-style-type: none"> • broadleaf herbicides is required to ensure optimal weed control. • NOTE: A tank mix of MARSHALL and Classic Herbicide may result in a reduction in control of quackgrass and yellow foxtail. Use <u>at least</u> 0.50 L/ha of MARSHALL. For <u>most consistent</u> results, use the 0.63 g/L rate of MARSHALL.
	0.63 L/ha MARSHALL PLUS 5.5 – 8.0 g/ha Pinnacle* Toss-N-Go* Herbicide PLUS 1.75 – 2.25 L/ha Basagran® Forte Herbicide PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Refer to the Pinnacle* Toss-N-Go* Herbicide and Basagran* Forte Herbicide labels for general information, use precautions, a list of broadleaf weed-specific rates and the most appropriate application timings. • If the timings for grassy and broadleaf weeds do not coincide, a sequential application may be required to ensure satisfactory control. • DO NOT apply before the crop has 1 – 2 full trifoliolate leaves. • NOTE: A tank mix of MARSHALL, Pinnacle* Toss-N-Go* Herbicide and Basagran* Forte Herbicide may result in a reduction in grassy weed control. For optimum control, a rate of 0.63 L/ha MARSHALL is recommended. • When growing conditions are not conducive to good growth, use the higher rate of XA Oil Concentrate. • DO NOT FREEZE
	0.50 L/ha MARSHALL PLUS 5.5 – 8.0 g/ha Pinnacle* Toss-N-Go* Herbicide PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Refer to the Pinnacle* Toss-N-Go* Herbicide label for general information, use precautions, a list broadleaf weed-specific rates and the most appropriate application timings. • If the timings for grassy and broadleaf weeds do not coincide, a sequential application may be required to ensure satisfactory control. • DO NOT apply before the crop has 1 – 2 full trifoliolate leaves. • Control of velvetleaf may be reduced when Pinnacle*Toss-N-Go* Herbicide is tank mixed with MARSHALL. For optimal control, apply the products separately. • When growing conditions are not conducive to good growth, use the higher rate of XA Oil Concentrate. • DO NOT FREEZE
	0.38 – 0.63 L/ha MARSHALL PLUS 42.8 g/ha Reliance* STS* Toss-N-Go* Herbicide PLUS Surfactant (see DIRECTIONS FOR	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Tankmix for the control of annual grassy and broadleaf weeds in sulfonylurea tolerant soybean varieties (varieties designated “STS”) • NOTE: A tank mix of MARSHALL and Reliance* STS* Toss-N-Go* Herbicide may result in a reduction in control of quackgrass and yellow foxtail. Use <u>at least</u> 0.50 L/ha of MARSHALL. For <u>most consistent</u> results, use the 0.63 g/L rate of MARSHALL.

CROP	RATE	COMMENTS
	USE section of this label for recommendations)	<ul style="list-style-type: none"> • Refer to Reliance* STS* Toss-N-Go* Herbicide label for general information, use precautions, a list broadleaf weed-specific rates and the most appropriate application timings. • If the timings for grassy and broadleaf weeds do not coincide, a sequential application may be required to ensure satisfactory control.

NOTE TO USERS: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Nissan Chemical Corporation and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion Program. Nissan Chemical Corporation itself makes no representation or warranty with respect to product performance (efficacy) and crop tolerance (phytotoxicity) of this product when used on the crops listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Nissan Chemical Corporation harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

Refer to:

- DIRECTIONS FOR USE section of this label for a list of surfactant options
- DIRECTIONS FOR USE section of this label for a complete list of grassy weeds and their stages of control
- USE PRECAUTIONS section of this label for additional application and/or use precaution instructions
- SPRAY PREPARATION section of this label for mixing instructions.

CROP	RATE	COMMENTS
ETHIOPIAN MUSTARD (BRASSICA CARINATA)	0.38 or 0.5 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND OR AERIAL APPLICATION • Refer to Directions for Use for the leaf stage of the grassy weeds • Do not apply within 64 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Dry Faba Beans (Dry Broad Beans) and Narrow Leaf Lupin	0.38 -0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLIATION ONLY • Use 100-400 litres of water/ha. • Use as single post emergent spray • Do not apply within 30 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Established red and alsike clovers for seed production	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Do not graze or cut for hay in the year of treatment • Do not apply within 30 days of harvest. • Application should be made before crop canopy closes. • Make one application per growing season. • Apply a minimum of 100 L/ha of total spray volume.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	

GROUP 9 – CUCURBIT VEGETABLES	0.38 – 0.75 L/ha MARSHALL	Including: citron melon; cucumber; gherkin; edible gourd (hyotan, cucuzza); Chinese okra; Chinese cucumber; muskmelon hybrids and or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon; pumpkin; summer squash including crookneck squash, scallop squash, straightneck squash, vegetable marrow, and zucchini; winter squash including butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash; watermelon including hybrids and/or varieties of Citrullus lanatus.
	PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
		<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Do not apply within 30 days of harvest. • Make one application per year when the crop is at the 2-6 leaf stage. • Use in a minimum of 100 litres of water/ha. • Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.
		<ul style="list-style-type: none"> •
Camelina Sativa	0.38 – 0.75 L/ha MARSHALL PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	<ul style="list-style-type: none"> • GROUND APPLIATION ONLY • Use in a minimum of 100 litres of water/ha. • Do not apply within 64 days of harvest. • DO NOT use open cab equipment if treating more than 290 ha/day. If treating more than 290 ha/day, closed cab equipment, long-sleeved shirt, long pants, socks, and shoes are required for application. • DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 days following application for scouting activities in camelina.
Seedling Legumes for Seed Production Only (for bird's-foot trefoil, alsike, red, white and sweet clover and sainfoin)	0.50 - 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Apply before crop canopy closes to maximize spray coverage. • One application per season only • Use a properly calibrated sprayer that will provide thorough coverage of the weeds • Apply a minimum of 100 L / ha of total spray volume. • DO NOT graze or cut for hay in the year of treatment
	PLUS Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Established Creeping Red Fescue for Seed	0.50 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> • GROUND APPLICATION ONLY • Refer to Ally* Herbicide label for general information, use precautions, a list broadleaf weed-specific rates
	PLUS	

Production Only	7.5 g/ha Ally [®] Herbicide	<p>and the most appropriate application timings.</p> <ul style="list-style-type: none"> Apply MARSHALL + ALLY[®] Herbicide tank mixture post emergent to the first main flush of actively growing weeds, when established creeping red fescue is in the 2 leaf to flag leaf (shot blade) stage. Apply before the crop canopy is dense enough to prevent thorough coverage of the weeds. One application per season only.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Seedling or Established Creeping Red Fescue for Seed Production	0.50 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Apply when quackgrass is in the 2-6-leaf stage and when annual grassy weeds are from the 2-leaf stage to early tillering. Apply before crop canopy closes to maximize spray coverage. One application per season only Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray solution. Apply a minimum of 100 L / ha of total spray volume DO NOT graze or cut treated established creeping red fescue for feed or hay in the year of treatment.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Snap Beans	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY One application per season only at the 2- to 5-leaf stage of annual grasses and up to the 3-leaf stage of quackgrass. DO NOT apply within 30 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Sugarbeets	0.38 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Apply MARSHALL as a post emergent broadcast application to small, emerged grassy weeds between the 2 leaf to early tillering leaf stage. Apply before crop canopy closes to maximize spray coverage. If a second flush of annual grasses or volunteer cereals is observed, apply an additional (sequential) application of MARSHALL at 0.38 L /ha + recommended adjuvant. For optimum control of grassy weeds, volunteer cereals and quackgrass, apply MARSHALL at 0.75 L/ha with recommended adjuvant. Do not exceed an accumulative, seasonal use rate of 0.75 L/ha of MARSHALL per year. Use a properly calibrated sprayer that will provide thorough coverage of the weeds with the spray solution. DO NOT apply within 60-80 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	

Dry Common Beans (<i>Phaseolus vulgaris</i> spp) including, but not limited to all dry common bean types listed on this label	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Dry common bean varieties may vary in their tolerance to herbicides, including MARSHALL. The tolerance of some dry common bean varieties listed on this label has been confirmed when MARSHALL is applied as directed. Since not all dry common bean varieties have been tested for tolerance to MARSHALL, first use of MARSHALL should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific varieties of dry common beans to MARSHALL. DO NOT apply within 30 days of harvest. One application per season
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Pinto, Navy, Great Northern, Pink and Small Red Beans (western Canada only)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Apply a minimum of 100 L / ha of total spray volume One application per season. DO NOT apply within 30 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
White, White and Red Kidney, Cranberry, Black, Brown and Yellow Eye, Lima, Mung, Otebo and Adzuki Beans (southern Ontario Only)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Apply at the 2-5-leaf stage of the annual grasses. One application per season. DO NOT apply within 30 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Pinto, Pink, Great Northern and Small Red Beans (western Canada only)	0.63 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY One application per season only Refer to the Basagran* Herbicide label for general information, use precautions, a list broadleaf weed-specific rates and the most appropriate application timings. DO NOT apply within 65 days of harvest
	PLUS	
	1.75 – 2.25 L/ha Basagran* Herbicide	
	PLUS	
Rutabagas (Ontario and Quebec only)	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY Apply at the 2-5-leaf stage of the annual grasses. One application per season. DO NOT apply within 30 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	

	recommendations)	
Industrial Hemp for Fibre, seed and oil Production	0.38 – 0.75 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY One application per season only when the crop is at the 2-6 crop leaf stage (6-25 cm in height) Use in a minimum of 100 litres of water/ha with a spray pressure of 210-275 kPa.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	
Soybeans (Ontario only)	0.38 L/ha MARSHALL	<ul style="list-style-type: none"> GROUND APPLICATION ONLY For the control of long-spined sandbur apply as a single post emergent spray at the 2 leaf to tillering stage. DO NOT apply within 80 days of harvest.
	PLUS	
	Surfactant (see DIRECTIONS FOR USE section of this label for recommendations)	

SPRAYER CLEANOUT

Thoroughly clean all traces of MARSHALL from application equipment immediately after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Failure to thoroughly clean the equipment may result in injury to subsequently sprayed grass crops.

STORAGE AND DISPOSAL

STORAGE:

Store product in original container only, away from fertilizer, seed, food or feed. Not for use or storage in or around the home. Keep container closed. DO NOT FREEZE.

DISPOSAL:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

For the clean-up of spills, leaks or to report a fire: 1-800-424-9300 (24 hours)

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under *the Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

*All other products mentioned are trademarks of their respective companies.