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GROUP	2	3	HERBICIDES
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VALOR® - 1 HERBICIDE

FOR SOYBEANS

AGRICULTURAL

EMULSIFIABLE CONCENTRATE

GUARANTEE: imazethapyr ... 24.61 g/L
pendimethalin ... 300.22 g/L

REGISTRATION NO. 27458

PEST CONTROL PRODUCTS ACT



CAUTION

POISON

NET CONTENTS: 1 - 1000 L

WARNING: SKIN AND EYE IRRITANT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND BOOKLET BEFORE USING

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT

1-800-454-2673

BASF Canada Inc.
100 Milverton Drive, 5th Floor
Mississauga, Ontario
L5R 4H1
1-877-371-2273

VALOR®-1 is a registered trademark of BASF.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed, inhaled or absorbed through the skin.

WARNING - may irritate skin and eyes.

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. Wear goggles or face shield during mixing or loading. Wear chemical resistant gloves (such as nitrile) and long sleeved coveralls during mixing, loading, clean up and repair.

Applicators must wear long pants and a long-sleeved shirt during application.

AVOID BREATHING VAPOUR OR SPRAY MIST.

Users should wash hands before eating, drinking, chewing gum and when using tobacco or the toilet.

It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

Remove personal protective equipment immediately after handling this product. Wash the outside of the gloves before removing. As soon as possible, wash hands (or any other skin that came into contact with the product) with soap and water and change into clean clothing.

Remove clothing/personal protective equipment immediately if pesticide comes in contact with the skin through soaked clothing or spills. Then wash skin thoroughly and put on clean clothing. Wash contaminated clothing (separately from household laundry) before reuse.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

Handle with care and mix only in a closed container. Use only in a well ventilated area. When using do not eat, drink or smoke.

Do not enter or allow entry into treated areas during the restricted-entry interval of 12 hours.

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.

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 product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

This product contains a petroleum distillate.

Because of increase risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision.

ENVIRONMENTAL HAZARDS

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

This product contains aromatic petroleum distillates which are toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

STORAGE

Shake well before using. Keep from freezing. DO NOT STORE BELOW 4°C. Extended storage at temperatures below 4°C can result in the formation of crystals on the bottom of the container. If crystallization does occur, shake well to re-dissolve crystals before using. DO NOT store near food or feed products.

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 the 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. The user assumes the risk to persons or property that arises from any such use of this product.

DIRECTIONS FOR USE

GENERAL

VALOR-1 herbicide is a selective herbicide that can be applied pre-plant incorporated from 45 days prior to planting soybeans. After VALOR-1 herbicide is applied, some susceptible weeds emerge, growth stops and the weeds wither, die or are not competitive with the crop.

The weed killing activity of VALOR-1 herbicide involves herbicide uptake by weed roots and rapid translocation to the growing points. Therefore, adequate soil moisture is important for optimum VALOR-1 herbicide activity. When adequate soil moisture is present, VALOR-1 herbicide will provide residual control of susceptible germinating weeds. Unusually cold, excessively wet or hot and dry conditions that delay germination or extend germination over a long period of time may reduce weed control.

Replanting: If replanting is necessary in a field previously treated with VALOR-1 herbicide the field may be replanted to soybeans. Rework the soil no deeper than the treated zone. Do not apply a second treatment of VALOR-1 herbicide.

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted the season following VALOR-1 herbicide use in soybeans:

Field	corn
Soybeans	White and kidney beans

There is insufficient information to clearly define what additional rotational crops can be planted the season following VALOR-1 herbicide.

DO NOT plant other rotational crops prior to 18 months after a VALOR-1 herbicide application.

Only rotational crops harvested at maturity may be used for feed or food.

Planting Depth: Soybeans should be planted at least 5 cm deep.

RATE: 3.58 L/ha of VALOR-1 herbicide in 100 to 400 litres of water per hectare.

MIXING INSTRUCTIONS

Fill the spray tank one-half to three-quarters full with clean water. While agitating add the required amount of product and then fill the remainder of the tank with water. Maintain agitation while spraying to ensure a uniform spray mixture.

WEEDS CONTROLLED

The following grass and broadleaf weeds are controlled by recommended treatments of VALOR-1 herbicide:

GRASSES
Barnyard grass Foxtail green yellow

BROADLEAF WEEDS
Lamb's-quarters, common Velvetleaf Redroot Pigweed

VALOR-1 herbicide will provide partial control and reduce competition from: Ragweed, common
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SOIL APPLICATION INSTRUCTIONS

VALOR-1 HERBICIDE MUST BE SOIL APPLIED AND INCORPORATED INTO THE SOIL PRIOR TO PLANTING. DO NOT apply after planting soybeans as crop injury may occur.

VALOR-1 herbicide controls weeds by uptake by weed roots and translocation to the growing points where it stops weed growth.

Adequate soil moisture is required for optimum activity. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 5 cm is normally adequate. If adequate moisture is not received, then cultivation is recommended to control escaped weeds. When adequate moisture is received after dry conditions, VALOR-1 herbicide will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil. Weeds which continue to grow beyond the 2 true leaf-stage may be escapes and should be controlled by tillage or application of a post-emergence herbicide.

PREPLANT INCORPORATED APPLICATION

VALOR-1 herbicide may be applied following land preparation and should be thoroughly incorporated to a depth of 5 cm. Incorporate prior to soybean planting. Mechanical incorporation can be achieved by the following:

- a) Disk harrow set to cut 7 - 10 cm. deep and operated at 6 to 10 kph with the second pass at an angle to the first.
- b) PTO-driven equipment (tillers, cultivators, hoes) set to cut deep and operated one time at 6 kph or less.
- c) Field cultivator with 3 to 4 rows of sweeps (Do not use chisel points), spaced at intervals of 10 cm. or less and staggered so that no soil is left unturned, set to cut 7 cm deep and operated two times at more than 7 kph with the second pass made at an angle to the first.
- d) LELY-Roterra® set and operated according to the manufacturer's directions to thoroughly incorporate VALOR-1 herbicide to a depth of 2 to 7 cm.
- e) Do-All set and operated according to the manufacturer's directions to incorporate VALOR-1 herbicide 2 to 7 cm deep and operated at 6 to 10 kph.

If soybeans are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or a rolling cultivator.

SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATION

Apply only when the potential for drift to areas of human habitation or areas of human activity (houses, cottages, schools and recreational areas) is minimal. Take into consideration wind speed, wind direction, temperature inversion, application equipment and sprayer settings.

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.

DO NOT APPLY BY AIR.

Buffer Zones

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	Crop	Buffer Zones (metres) Required for the Protection of:						Terrestrial Habitats
		Freshwater Habitats of Depths:			Estuarine/Marine Habitats of Depths:			
		Less than 1 m	1-3 m	Greater than 3 m	Less than 1 m	1-3 m	Greater than 3 m	
Field sprayer*	Soybeans	5	2	1	15	5	2	2

* 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 or ground, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy or ground, the labelled buffer zone can be reduced by 30%.

SURFACE RUNOFF

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

WARNINGS

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

ONLY soybeans, field corn or winter wheat may be planted the season following a VALOR-1 herbicide preplant incorporated application.

DO NOT apply VALOR-1 herbicide on coarse textured soils or soils with less than 3% organic matter.

DO NOT overapply VALOR-1 herbicide. Over application may result in injury particularly if the crop is under stress.

Allow an interval of 100 days following the last VALOR-1 herbicide application before soybean harvest.

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

DO NOT let spray drift contaminate crops other than those being sprayed.

ONLY ONE (1) application of VALOR-1 herbicide may be made during the season.

Emerged weeds which reach the 2 - 3 true leaf stage might be considered as escapes. Shallow cultivation or application of a post-emergence herbicide is recommended. DO NOT cultivate deeply.

DO NOT apply VALOR-1 herbicide more than one year in sequence. DO NOT apply VALOR-1 herbicide and PURSUIT herbicide preplant incorporated in sequential years. Allow at least 24 months between preplant incorporated applications of these herbicides. DO NOT apply PROWL® herbicide in the year following the application of VALOR-1 herbicide. DO NOT apply VALOR-1 herbicide in the year following the application of PROWL herbicide.

In cases of crop failure, only soybeans may be re-planted in the year of application. Soil preparation for re-planting should be no deeper than 10 cm.

DO NOT apply VALOR-1 herbicide when the crop is under stress conditions because crop injury may result.

Several herbicides control weeds in a manner similar to VALOR-1 herbicide. These products (PURSUIT®, PINNACLE®) should not be used in the same season as VALOR-1 herbicide to control escaped weeds.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that VALOR-1 herbicide is both a Group 2 and a Group 3 herbicide, respectively. Any weed population may contain or develop plants naturally resistant to VALOR-1 herbicide and other Group 2 and/or Group 3 herbicides. The resistant 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 VALOR-1 herbicide or other Group 2 and Group 3 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 BASF at 1-877-371-2273.

®All other products listed are registered trademarks of their respective companies.

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This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.