



**BELCHIM**  
C R O P P R O T E C T I O N

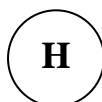
## PROMAN®

**Version and date: Version 2 Autumn 2017**

**Changes since last version:** New pack sizes

**FORMULATION AND ACTIVE INGREDIENT:** A suspension concentrate (SC) formulation containing 500 g/L of metobromuron. A pre-emergence herbicide for the control of annual broad-leaved weeds and annual grasses in potatoes.

**PACK SIZE:** 1 –15L e



**PCS No.:** 04450

**UN No:** 3082



**FOR PROFESSIONAL USE ONLY**

**PROTECT FROM FROST**

<b>IMPORTANT INFORMATION: FOR USE ONLY AS AN AGRICULTURAL HERBICIDE</b>			
Crop	Maximum Individual dose (L product/ha)	Maximum number of treatments (per crop)	Latest time of application
Potato	4 L/ha	1	Pre-emergence

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE PRINCIPLES OF GOOD PLANT PROTECTION PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**

®PROMAN is a registered trademark of Belchim Crop Protection NV/SA

	<p><b>PROMAN</b> A suspension concentrate (SC) formulation containing 500 g/L metobromuron</p>
<p><b>WARNING</b></p>  	<p><b>Suspected of causing cancer</b>  <b>May cause damage to blood system through prolonged or repeated exposure</b>  <b>Very toxic to aquatic life with long lasting effects</b></p> <p>Avoid release to the environment  Wear protective gloves/protective clothing  If swallowed: call a poison center or doctor/physician if you feel unwell  If exposed or concerned: get medical advice/attention  Collect spillage  Dispose of contents to a licensed hazardous-waste disposal contractor or collection site except for empty clean triple-rinsed containers which can be disposed of as non-hazardous waste</p> <p>Contains metobromuron. May produce an allergic reaction</p> <p><b>To avoid risks to human health and the environment, comply with the instructions for use.</b></p>

## **SAFETY PRECAUTIONS**

### **Operator Protection**

ENGINEERING CONTROL OF OPERATOR EXPOSURE must be used where reasonably practicable in addition to the following personal protective equipment:

- WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when handling the concentrate and contaminated surfaces.
- IN CASE OF CONTACT WITH EYES OR SKIN, rinse immediately with plenty of water and consult a specialist.
- IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL; seek medical advice immediately (show the label where possible)
- DO NOT BREATHE spray vapours or mist.
- WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the inside of gloves.
- WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.
- WHEN USING DO NOT EAT, DRINK OR SMOKE.

### **Environmental Protection**

- DO NOT CONTAMINATE WATER with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
- Take care to avoid drift onto neighbouring crops and non-agricultural land.

### **Storage and Disposal**

- KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
- Store in a safe, dry, frost-free place designated as an agrochemical store.
- KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
- DO NOT re-use empty container for any purpose.

## **DIRECTIONS FOR USE**

**IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.**

PROMAN is a selective pre-emergence herbicide for the control of annual broad-leaved weeds and annual grasses in potatoes. The product is mainly absorbed by the roots and transported acropetally within the plant after uptake. PROMAN acts by inhibiting photosynthesis in susceptible weeds.

PROMAN may be applied on all varieties of potatoes.

### RESTRICTIONS

- Some transient crop discolouration may occur under certain climatic conditions where heavy rainfall follows application. This transient crop effect is rapidly outgrown and has no effect on crop yield.
- Reduced levels of weed control may occur if application is made to dry cloddy seedbeds or if a prolonged dry period follows application.
- Do not overlap the spray swaths

### RESISTANCE

Metobromuron belongs to the chemical family of ureas and is classified as an inhibitor of photosynthesis. Spraying the same field repeatedly, with products containing active substances from the same chemical family, or having the same mode of action, can lead to the development of resistance.

To reduce the risk, it is recommended to alternate or to tank mix products containing active substances with complementary activity but from different chemical groups or having different modes of action, not only within one growing season but also throughout the crop rotation.

Strains of some annual grasses (e.g. black-grass, wild oats and Italian rye-grass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from HGCA, CPA, your distributor, crop advisor or product manufacturer.

### WEEDS CONTROLLED

The following weeds are susceptible to PROMAN when applied pre-emergence of the weeds:

Common name of weed	Latin name	Susceptibility at 3 L/ha	Susceptibility at 4 L/ha
<b>Grass weeds</b>			
Annual meadow grass	<i>Poa annua</i>	S	S
Cockspur grass	<i>Echinochloa crus-galli</i>	-	MS
Foxtail spp	<i>Setaria spp</i>	-	MS
<b>Broad-leaved weeds</b>			
Annual mercury	<i>Mercurialis annua</i>	-	MS
Black bindweed	<i>Fallopia convolvulus</i>	MR	MS
Black nightshade	<i>Solanum nigrum</i>	-	MS
Charlock	<i>Sinapis arvensis</i>	S	S
Chickweed	<i>Stellaria media</i>	S	S
Common amaranth	<i>Amaranthus retroflexus</i>	-	MS
Fat hen	<i>Chenopodium album</i>	S	S
Field pansy	<i>Viola arvensis</i>	-	S
Fumitory	<i>Fumaria officinalis</i>	-	MS
Green amaranth	<i>Amaranthus hybridus</i>	-	MS
Groundsel, Common	<i>Senecio vulgaris</i>	S	S
Knotgrass	<i>Polygonum aviculare</i>	MS	S
Scented mayweed	<i>Matricaria chamomilla</i>	S	S
Scentless mayweed	<i>Matricaria inodora</i>	S	S
Shepherd's purse	<i>Capsella bursa-pastoris</i>	S	S

### **TIMING OF APPLICATION**

PROMAN should be applied following the last ridging and before emergence of the crop and weeds.

### **DOSE RATE**

Apply PROMAN at a dose rate of 3 to 4 litres product/ha (see weed susceptibility table for selection of correct dose). The higher dose rate should be used on heavy soils with a high clay content.

Maximum number of treatments per crop: One.

### **WATER VOLUME AND SPRAY QUALITY**

Apply in 200 to 600 L of water per ha using a MEDIUM spray quality as defined by BCPC.

### **SOIL TYPE**

PROMAN is recommended for use on all soil types. Optimum efficacy is achieved when applied to moist soil. The efficacy of PROMAN may be reduced when applied on soils with a high organic matter content (>10%).

### **MIXING AND APPLICATION**

Before using PROMAN, ensure the spray equipment is clean.

Shake the container well before use.

1. Half fill the spray tank with water and commence agitation.
2. Add the required quantity of product to the spray tank and complete filling, maintaining agitation until spraying is completed.
3. On emptying the product container, rinse container thoroughly by using an integrated pressure rinsing device or manually rinsing three times when empty. Add washings to sprayer at time of filling and dispose of container safely.
4. On preparation of spray solution, use as soon as practically possible.

Never prepare more spray solution than required.

### **COMPATIBILITY**

Consult Belchim Crop Protection before tank mixing other adjuvants or other pesticides.

### **SPRAY TANK CLEAN OUT**

All application equipment and contaminated clothing should be thoroughly washed/rinsed with clean water three times. After each step of washing drain the sprayer, spray out completely. Ensure that all liquid is removed from the sprayer tank, pump and hoses. Remove nozzles, open tank and drain pump to allow free access of air to all parts of the system. Care should be taken not to rinse contaminated washings from application equipment into waste water channels. Contaminated cleaning liquids should be disposed of safely according to local regulations. Operators should read the sprayer manufacturer's instructions before beginning to wash out sprayers.

### **FOLLOWING CROPS**

Following normal harvest of a treated crop, Brassicas (oilseed rape, turnip, brassica vegetables) and sugar beet may be sown, providing the soil has been ploughed. No restrictions apply when other crops are sown.

### **REPLACEMENT CROPS**

In the event of crop failure for any reason, maize, beans, peas and carrots may be sown after ploughing. It is not recommended to sow Brassicas (oilseed rape, turnip, brassica vegetables) or sugar beet as a replacement crop after crop failure. Potatoes can be re-planted after minimal cultivation.

### **CONDITIONS OF SUPPLY**

All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before,

during and after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality of fitness for any purpose of our goods are excluded, and no responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

TECHNICAL ENQUIRIES:	01480 403333
24 HOUR EMERGENCY NUMBER:	0032 1458 4545

**Marketing company: Belchim Crop Protection Limited**  
**1b Fenice Court, Phoenix Park, Eaton Socon, St. Neots, Cambridgeshire PE19 8EW**

<b>Tel : 01480 403333</b>	<b>Fax : 01480 403444</b>
<a href="http://www.belchim.co.uk">www.belchim.co.uk</a>	<b>Info-uk@belchim.com</b>
<b>Weblink for MSDS Information:</b> <a href="http://www.belchim.co.uk/pdf/MSDS/Proman_MSDS.pdf">www.belchim.co.uk/pdf/MSDS/Proman_MSDS.pdf</a>	

®PROMAN is a registered trademark of Belchim Crop Protection NV/SA

Approval holder:  
Belchim Crop Protection NV/SA  
Technologielaan 7  
B-1840 Londerzeel  
Belgium

Distributed by:  
Whelehan Crop Protection  
Suite 12, Bunkilla Plaza  
Clonee  
Co Meath  
Ireland

Tech enquiries: 00 353 1 4688900