Health Canada Santé Canada

A.H. Marks MCPP-p 600 Liquid Herbicide

Evaluation Report for Category B, Subcategory B.2.3, B.2.4, B.2.1-S-N-EP; Cat C.3.1-S-N-EP

Application Number: 2005-4345
Applicant: A.H. Marks and Company Ltd
Product: MCPP-p 600 Liquid Herbicide
Registration Number: 28563
Active ingredients (a.i.): mecoprop-p
Registration Number(a.i.): 27441
PMRA Document Number: 1388844

Background

MCPP-p 600 Liquid Herbicide is an end use product containing mecoprop-p as the technical active ingredient (present as dimethylamine salt, 600 g a.i./L). It is registered for the control of broadleaf weeds in turf, golf greens, fairways, wheat, oats and barley (USC #13, 14 and 30). The proposed maximum application rates are 2.1 L end-use product/ha for turf, golf greens and fairways and, 1.75 L end-use product/ha for wheat, oats and barley. The product is applied by ground application only. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

The use pattern for MCPP-p 600 is the same as that of Compitox Liquid Herbicide (Reg. No. 27824; Nufarm Agriculture Inc.), which contains the same active ingredient, mecoprop-p (150 g a.i./L) as potassium salt. The maximum application rates of this product in terms of active ingredient/ha for turf, golf greens, fairways, wheat, oats and barley are the same as that of MCPP-p 600 Liquid Herbicide .

Purpose of Application

The purpose of this application is to register MCPP-p 600 Liquid Herbicide, a new herbicide with a new guarantee, new formulants and a new proportion of formulants.

Chemistry Assessment

A.H. Marks MCPP-p 600 Liquid Herbicide is a solution with a density of 1.144 g/mL and pH of 8.78. The chemistry requirements for this product have been completed.

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Health Assessments

A.H. Marks MCPP-600 Liquid Herbicide is of moderate toxicity via the oral route (LD_{50} = 905 mg/kg bw in females), low toxicity via the dermal route (LD_{50} > 4000 mg/kg bw in males and females) and was determined to be of low toxicity via the inhalatory route as the technical grade ingredient is of low toxicity and A.H. Marks MCPP-600 Liquid Herbicide is an aqueous dilution of that product. It is considered corrosive to the eyes of rabbits, mildly irritating to the skin of rabbits and is not a dermal sensitizer in guinea pigs.

From the requested uses of the product, potential exposure for mixer/loader/applicators or for workers re-entering treated fields for post application activities are not expected to increase over the registered use pattern for mecoprop-p.

To support the new end-use product A.H. Marks MCPP-p 600 Liquid Herbicide, no new residue data were submitted. As mecoprop is already registered under the same use pattern for wheat, barley and oats, no increase in dietary exposure is anticipated. Data requirements as described in Attachment 1 must be fulfilled in order to convert from conditional to full registration.

Environmental Assessment

Use of MCPP-p 600 Liquid Herbicide for the control of broadleaf weeds in turf, golf greens, fairways, wheat, oats and barley does nor result in an unacceptable environmental risk. All the new formulants in MCPP-p 600 herbicide are not expected to pose a TSMP concern.

Value Assessment

Efficacy and crop safety data were submitted from 12 field trials across the Prairie region in 2004. Treatments of MCPP-p 600 Liquid Herbicide applied at 825 g a.i./ha (near the minimum 1x rate of 840 g a.i./ha), 1050 g a.i./ha (maximum 1x rate), and 2100 g a.i./ha (maximum 2x rate) were compared to other registered products of mecoprop-p, containing 150 g mecoprop-p/L as the potassium salt and applied at the same rates, and the racemic mixture of mecoprop, containing 150 g mecoprop on a d-isomer basis and applied at the same rates.

Efficacy data were collected for several weed species, including cleavers and Canada thistle which are proposed for labelling for MCPP-p 600 Liquid Herbicide. The level of weed control observed for MCPP-p 600 Liquid Herbicide was comparable to that of other registered mecoprop herbicides within rate and evaluation timing.

Crop injury data were generated for barley (4 trials), spring wheat (3 trials), and oat (5 trials). The level of injury observed in treatments of MCPP-p 600 Liquid Herbicide was comparable to that observed in other mecoprop herbicide treatments within rate and evaluation timing. Injury was usually manifested as stunting. With the exception of one trial conducted on oat, all trials were taken to yield. The grain yield of wheat, oat and barley treated with MCPP-p 600 Liquid Herbicide was comparable to that treated with other registered mecoprop herbicides.

While trials were only conducted in cereal crops, it would be expected that performance, in terms of both efficacy and crop safety, would be comparable between MCPP-p 600 Liquid Herbicide and other registered herbicide products containing mecoprop (as mecoprop-p or as the racemic mixture) when applied to turf. Therefore, weed control and turf grass tolerance claims that are registered for products containing mecoprop-p and/or the racemic mixture of mecoprop were also supported for MCPP-p 600 Liquid Herbicide.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to support the conditional registration of the end-use product MCPP-p 600 Liquid Herbicide.

To convert into full registration, the applicant must fulfill the data requirements as described in Attachment 1

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