

Evaluation Report for Category B, Subcategory 4.1 Application

Application Number: 2007-8673
Application: Conversion to full registration without consultation
Product: Chloropicrin 100 Liquid Soil Fumigant
Registration Number: 25863
Active ingredients (a.i.): Chloropicrin
PMRA Document Number: 1601685

Background

Chloropicrin 100 Liquid Soil Fumigant (PCP# 25863) was first registered in 1999 and is used as a pre-plant fumigant for early season control of soil-borne pests. Chloropicrin 100 Liquid Soil Fumigant is currently fully registered for use on tobacco and conditionally registered for use on strawberry runner production, potatoes, tomatoes, peppers, strawberries and raspberries.

Purpose of Application

The purpose of this application is to convert the end use product Chloropicrin 100 Liquid Soil Fumigant (PCP# 25863) from conditional to full registration.

Chemistry Assessment

No changes to the Product's specifications have been proposed, thus, a chemistry assessment was not required.

Health Assessments

No changes to the Product's specifications have been proposed. No new toxicity data were required or submitted. Required changes/additions to secondary label action statements and first aid statements reflect revised PMRA labelling standards.

No new residue data for chloropicrin were submitted to support the conversion to full registration of the end-use product Chloropicrin 100 Liquid Soil Fumigant. Previously reviewed residue data in/on potato, strawberry, pepper and tomato were reassessed in the framework of this petition. As there were no data gaps in the chloropicrin residue chemistry database, the food residue risk profile of chloropicrin is well characterized. The recommended MRLs for chloropicrin are still acceptable. The full registration of Chloropicrin 100 Liquid Soil Fumigant is not expected to pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

An occupational risk assessment was not required since the use pattern, including host crops, application rates and timings remain unchanged.

Environmental Assessment

An environmental assessment was not conducted because the proposed rate of chloropicrin application does not exceed currently registered rates and no additional environmental data were required to support the conversion of the registration of Chloropicrin 100 Liquid Soil Fumigant from conditional to full registration.

Value Assessment

The applicant submitted one study on pine seedlings, which was not reviewed as it did not reflect the use claims on the label. Three scientific journal papers on tobacco, tomatoes and peppers were reviewed as well as an unpublished study on strawberries, which was considered supplemental data. Chloropicrin reduced soil fungal pathogen populations and viability significantly in all studies, although control was variable. Increases in plant stand and height, as well as yield, were also observed. The rates tested in the trials did not always reflect the proposed rate, but we can conclude that chloropicrin is efficacious against the target pests from the data. Fumigant efficacy can be influenced by high soil moisture, low soil temperatures and clay content. Pest pressures are variable from year to year, so fumigant efficacy will also vary. Although the results were less efficacious than methyl bromide, chloropicrin provided satisfactory control of the target pathogens in all studies.

Conclusion

The PMRA has completed an assessment of available information for Chloropicrin 100 Liquid Soil Fumigant and has found the information sufficient to support a full registration of all uses.

References

PMRA Document Number	Reference
1583257	1997. Alternative fumigants for methyl bromide in tobacco and pepper transplant production, Crop Protection 16:6 pp. 585-594.
1583258	2000. Methyl bromide alternatives in tobacco, tomato and pepper transplant production, Crop Protection 19:1 pp. 39-49.
1583259	2002. Efficacy of preplant soil fumigation with chloropicrin for tomato production in Italy, Crop Protection 21:9 pp. 741-749.
1583373	2001. Alternatives to methyl bromide use for control of black root rot of strawberry in Georgia, 2001, unpublished.

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