



Evaluation Report for Category B, Subcategory B.2.1, B.2.3, B.3.1 Application

Application Number: 2005-2409
Application: Category B, subcategory B.2.1, B.2.3, B.3.1
Product: Pic Plus Fumigant
Registration Number: 28715
Active ingredients (a.i.): Chloropicrin (CPN)
PMRA Document Number: 1424318

Background

Pic Plus Fumigant was first registered in April 26, 1999. It is currently registered for control of root knot and root lesion nematodes; and soil-borne diseases on tobacco, strawberries, strawberry runner production, raspberries, tomatoes, peppers and potatoes.

Purpose of Application

The purpose of the submission is to registering Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 (Reg. No. 25863). Pic Plus Fumigant is an 85.1% chloropicrin based solution, which has a lower corrosivity on the carbon steel cylinders and thus these cylinders have a longer life span than cylinders containing Chloropicrin 100. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the Pic Plus Fumigant product label.

Chemistry Assessment

Pic Plus Fumigant is a solution containing the active ingredient chloropicrin at a lower concentration of 85.1%. This product has a density of 1.53 g/mL and pH of 6.26. No additional chemistry data are required.

Health Assessments

The applicant requested that the acute toxicity studies from the currently registered product be referenced for evaluation of the new product, Pic Plus Fumigant. This was considered acceptable as Pic Plus Fumigant is similar to the precedent and, therefore, is expected to have similar toxicity. No additional toxicological data were required.

Environmental Assessment

The formulation of Pic Plus Fumigant contains the solvent Exssol 80 (aromatic; CAS# 64742-47-8; 14.0% v/v), an EPA List 2 formulant which is highly toxic to aquatic organisms. The presence of Exssol 80 in the composition is not expected to present a risk to aquatic organisms due to the application method (injected 20 cm below soil surface). The application rate is low, soil microbes will breakdown the product and runoff is not likely to occur.

Submitted data on the volatility differences between pure chloropicrin and the formulated product were reviewed and found acceptable. The addition of the formulant appears to retard the volatilization of the chloropicrin from the soil in the first few hours, however, over the long-term there does not appear to be any difference between Pic Plus and pure chloropicrin. Therefore, no increase in the potential for leaching of chloropicrin to groundwater is expected.

Value Assessment

Efficacy and crop safety data were generated in six field trials conducted between 2002 and 2004 in three states of the USA. The data demonstrated, when applied as proposed, the new formulation of chloropicrin, Pic Plus provided similar disease control compared with the commercial standard Chloropicrin 100 (Reg. No. 25863). Although only tobacco and potatoes were tested in the trials, it is expected that when applied as proposed, Pic Plus would not result in adverse effects on the other crops listed on the label.

Conclusion

The PMRA has completed an evaluation of the subject application and has found the information sufficient to register Pic Plus Fumigant for the same uses that are currently registered for Chloropicrin 100.

References List

Studies/Information Provided by Applicant/Registrant

PMRA # 1074090. Product Identification, N/S, MRID: N/S, DACO: 3.1.1,3.1.2,3.1.3,3.1.4
PMRA # 1074091. Formulation Process, N/S, MRID: N/S, DACO: 3.2.1,3.2.2,3.2.3,3.4.1
PMRA # 1074092. Establishing Certified Limits., N/S, MRID: N/S, DACO: 3.3.1
PMRA # 1074093. Chemical and Physical Properties, ABC Study No: 47680, MRID: N/S, DACO: 3.5.1,3.5.11,3.5.13,3.5.2,3.5.3,3.5.4,3.5.5,3.5.6,3.5.7,3.5.8,3.5.9
PMRA # 1074097. Determination of the Storage Stability and Corrosion Characteristics for Pic Plus., ABC Study No.: 47681, MRID: N/S, DACO: 3.5.10,3.5.14
PMRA # 1074098. Determination of Employability for Pic Plus., ABC Study No.:47682., MRID: N/S, DACO: 3.5.12
PMRA # 1074099. Pic Plus 30-day Corrosion Summary., N/S, MRID: N/S, DACO: 3.5.14
PMRA # 1074100. Waiver for not Submitting Dielectric Breakdown Voltage., N/S, MRID: N/S, DACO: 3.5.15
PMRA # 1074101. Effect of Adding Solvent to the Volatility of Chloropicrin Applied to Soil., Project ID #. TC440, BR884, MRID: N/S, DACO: 3.7
PMRA# 1226242. 2005, Effect of adding solvent to the volatility of chloropicrin applied to soil. DACO 8.2.3.6.

PMRA #1074096. Value Summaries - Tobacco; register Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 Liquid Soil Fumigant, Reg. No. 25863., DACO: 10.1

PMRA #1074102. 2005, Description of Pest Problem; register Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 Liquid Soil Fumigant, Reg. No. 25863., DACO: 10.2.2

PMRA #1074103. Efficacy Summary; register Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 Liquid Soil Fumigant, Reg. No. 25863., DACO: 10.2.3.1

PMRA #1074104. Chemical Nematicides and Fumigants for Control of Root-Knot Nematode in flue-Cured Tobacco, 2003., DACO: 10.2.3.3

PMRA #1074105. Chemical Control of Granville Wilt in Flue Cured Tobacco, 2004., DACO: 10.2.3.3

PMRA #1074106. Granville Wilt Control., DACO: 10.2.3.3

PMRA #1074107. Host Resistance and Chloropicrin to Control Granville Wilt in Virginia, 2002., DACO: 10.2.3.3

PMRA #1074108. Host Resistance and Chloropicrin to Control Granville Wilt in Virginia, 2003., DACO: 10.2.3.3

PMRA # 1074109. Evaluation of Pic-Plus Fumigation for Potato Production, 2004., DACO: 10.2.3.3

PMRA #1074110. Summary; register Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 Liquid Soil Fumigant, Reg. No. 25863., DACO: 10.3.1

PMRA #107411. Non-Safety Adverse Effects; register Pic Plus Fumigant for the same use pattern that presently is recommended for Chloropicrin 100 Liquid Soil Fumigant, Reg. No. 25863., DACO: 10.3.2

ISSN: 1911-8082

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