

Evaluation Report for Category B, Subcategory 2.3, 2.4, 3.4, 3.11, 3.12 Application

Application Number: 2010-2559
Application: New product chemistry: identity of formulants, proportion of formulants
New product label: new pests, new site or host, application method
Product: Arsenal PowerLine Herbicide
Registration Number: 30203
Active ingredient (a.i.): Imazapyr
PMRA Document Number English PDF: 2081095

Background

Arsenal Herbicide (Registration Number 23713) containing the active ingredient imazapyr was first registered in Canada in 1994 to control annual and perennial grasses, broadleaf weeds and select perennial shrubs and trees on the following non-crop, non-graze areas: forest sites being prepared by ground application, industrial sites, railroad ballast, spot application treatment for rail and hydro rights-of-way and stations associated with pipeline rights-of-way, including well sites, battery stations, and compressor or valve stations. It is applied using ground spray and hand-held equipment, typically by licensed applicators only.

The uses of imazapyr were re-evaluated in 2008 for which continued registration was acceptable (Proposed Re-evaluation Decision PRVD2008-10, *Imazapyr*; Re-evaluation Decision RVD2008-17, *Imazapyr*).

Purpose of Application

The purpose of this application was to register a new end-use product Arsenal PowerLine Herbicide based on the label of the precedent product Arsenal Herbicide.

Chemistry Assessment

Arsenal PowerLine Herbicide is formulated as a solution containing the active ingredient imazapyr (present as the isopropylamine salt) at a nominal concentration of 240 g/L. This end-use product has a density of 1.1 g/mL and a pH of 6.8 (1% solution). The chemistry requirements for Arsenal PowerLine Herbicide have been completed.

Health Assessment

Arsenal PowerLine Herbicide is of low acute oral ($LD_{50} > 2000$ mg/kg), dermal ($LD_{50} > 5000$ mg/kg) and inhalation ($LC_{50} > 5.5$ mg/L) toxicity. It is mildly irritating to the eyes and slightly irritating to the skin of rabbits. It is a dermal sensitizer in guinea pigs.

An updated chemical handler risk assessment demonstrated exposure was not expected to result in unacceptable risks.

Environmental Assessment

The use of Arsenal PowerLine Herbicide falls within the use pattern of the precedent product; therefore, a new environmental risk assessment was not required. As with the precedent product, buffer zones for aquatic and terrestrial habitats are required when using field sprayer equipment to mitigate risk of spray drift to non-target aquatic and terrestrial plants.

Value Assessment

The efficacy of Arsenal Powerline Herbicide for the control of labelled broadleaf weeds was directly compared to that of the precedent product Arsenal Herbicide applied at the rate of 720 g a.i./ha. The submitted data support the claim that the products are agronomically equivalent from an efficacy perspective.

The new claim for ‘low volume brush control’ was supported with data in which the efficacy of Arsenal Powerline Herbicide was assessed on several brush species. In all trials, percent defoliation and percent stem-kill were assessed the year after the treatment was applied. Based on the efficacy data and information provided, the claim of control of labelled species was supported.

Conclusion

The PMRA conducted an evaluation of the subject application and concluded that use of the product in accordance with the label has value and will not pose unacceptable health or environmental risk.

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