

Evaluation Report for Category B, Subcategory 2.3, 2.4, 2.5, 3.13 Application

Application Number: 2019-1442
Application: New End Use Product; Changes to Formulation Type, Identity and Proportion of Formulants, and Changes to Product Label Precautions
Product: Fierce EZ Master Herbicide
Registration Number:
Active ingredients (a.i.): Flumioxazin and pyroxasulfone
PMRA Document Number : 3118024

Purpose of Application

The purpose of this application was to register Fierce EZ Master Herbicide, formulated as a soluble concentrate based on a precedent product, for pre-plant and pre-emergent application to soybean, chickpea, field pea, lentil, field corn, and spring wheat and in fallow land for control of grasses and broadleaf weeds as well as to maintain bare ground on non-crop areas of farms or for industrial vegetation management.

Chemistry Assessment

Fierce EZ Master Herbicide is formulated as a suspension containing flumioxazin at a concentration of 160.0 g/L and pyroxasulfone at a concentration of 203.0 g/L. This end-use product has a density of 1.14 g/cm³ and pH of 7.42. The required chemistry data for Fierce EZ Master Herbicide have been provided, reviewed and found to be acceptable.

Health Assessments

Fierce EZ Master Herbicide is of low acute oral, dermal and inhalation toxicity in rats. It is non-irritating to the eye but minimally irritating to the skin of the rabbit. It is not a dermal sensitizer in mice.

The registration of Fierce EZ Master Herbicide, containing 160 g/L of flumioxazin and 203 g/L of pyroxasulfone coformulated as a suspension concentrate, can be supported from an occupational exposure perspective. Updated quantitative mixer/loader/applicator risk assessments were conducted for both active ingredients. Based on the timing of application, postapplication worker exposure is expected to be negligible and quantitative risk assessments were not required. No health risks of concern were identified provided that the recommended label amendments are made, and that workers wear the appropriate personal protective equipment and follow all label directions.

No new residue data for flumioxazin and pyroxasulfone were submitted with the current application. As such, previously reviewed data for flumioxazin and pyroxasulfone on soybeans, dry peas, dry beans, field corn and wheat were re-assessed and found

adequate to support the registration of the new suspension-formulated end-use product Fierce EZ Master Herbicide. The established Maximum Residue Limits (MRLs) for both active ingredients are also adequate to support the uses on soybeans, chickpeas, field peas, lentils (small red or large green varieties), field corn and spring wheat. No health risks of concern for acute or chronic dietary exposure (food and drinking water) are expected for any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The registration of Fierce EZ Master Herbicide does not pose any additional risk to the environment when products are used according to the label directions.

Value Assessment

Currently, several end-use products containing pyroxasulfone and flumioxazin are formulated as wettable granules. Because a certain segment of users prefer liquid herbicide products that are easily handled and applied, the liquid Fierce EZ Master Herbicide formulation can therefore provide value to these users.

Value information submitted for review consisted of scientific rationales and data from replicated field research trials, which were conducted in the Canadian Prairies, Ontario, and Quebec in 2018. This information demonstrated that the performance of Fierce EZ Master Herbicide was comparable to that of the cited precedent products when they were applied in accordance with their respective label instructions. Therefore, the uses and claims registered on the cited precedent products are supported for inclusion on the Fierce EZ Master Herbicide label.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to register Fierce EZ Master Herbicide.

References

PMRA

Document

Number	Reference
2979510	2018, Summary of Product Identity for Fierce SC Master Herbicide, DACO: 3.1.1,3.1.2,3.1.3,3.1.4,3.5.4,3.5.5
2979511	2017, V-10452 3.04 SC Herbicide: Product Identity and Composition, Description of Materials Used to Produce the Product, Description of Production Process, Description of Formulation Process, Discussion of Formation of Impurities, Preliminary Analysis, Certified Limits, Enforcement Analytical Method, Submittal of Samples, DACO: 3.2.1,3.2.2,3.2.3,3.3.1,3.4.1,3.4.2

- 2979512 2017, V-10452 3.04 SC Herbicide: Product Identity and Composition, Description of Materials Used to Produce the Product, Description of Production Process, Description of Formulation Process, Discussion of Formation of Impurities, Preliminary Analysis, Certified Limits, Enforcement Analytical Method, Submittal of Samples, DACO: 3.2.1,3.2.2,3.2.3,3.3.1,3.4.1,3.4.2 CBI
- 2979513 2017, Validation of Enforcement Analytical Method for Determination of Flumioxazin and Pyroxasulfone in V-10452 3.04 SC, DACO: 3.4.1
- 2979514 2017, Physical and Chemical Properties of V-10452 3.04 SC, DACO: 3.5.1,3.5.11,3.5.12,3.5.13,3.5.15,3.5.2,3.5.3,3.5.6,3.5.7,3.5.8,3.5.9
- 2979515 2019, Shelf-Life Storage Stability and Corrosion Characteristics of V-10452 3.04 SC, DACO: 3.5.10,3.5.14
- 3058029 2019, Linearity Validation for Method VAM-06s-001, DACO: 3.4.1
- 2979517 2017, V-10452 3.04 SC: Acute Oral Toxicity - Up-And-Down Procedure in Rats, DACO: 4.6.1
- 2979518 2017, V-10452 3.04 SC: Acute Dermal Toxicity in Rats, DACO: 4.6.2
- 2979519 2017, V-10452 3.04 SC: Acute Inhalation Toxicity in Rats, DACO: 4.6.3
- 2979520 2017, V-10452 3.04 SC: Primary Eye Irritation in Rabbits, DACO: 4.6.4
- 2979521 2017, V-10452 3.04 SC: Primary Skin Irritation in Rabbits, DACO: 4.6.5
- 2979522 2017, V-10452 3.04 SC: Local Lymph Node Assay (LLNA) in Mice, DACO: 4.6.6
- 2979508 2019, Appendix 1: Trial reports for "summary of value for Fierce EZ Master Herbicide, containing flumioxazin and pyroxasulfone", DACO: 10.1, 10.2.1, 10.2.2, 10.2.3.3(B), 10.3.1, 10.3.2(A), 10.3.3, 10.4, 10.5.1, 10.5.2, 10.5.3, and 10.5.4.

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