

Evaluation Report for Category B, Subcategories 2.5, 2.6 Application

Application Number: 2023-2986
Application: New End-use Product (Product Chemistry): Formulation Type and New Combination of Technical Grade Active Ingredients
Applicant: ADAMA Agricultural Solutions Canada Ltd.
Product: CAZADO
Registration Number: #####
Active ingredients (a.i.): Pinoxaden and thien carbazone-methyl
PMRA Document Number: 3647261

Purpose of Application

The purpose of this application was to register the herbicide, CAZADO, containing pinoxaden and thien carbazone-methyl, for post-emergent control of grassy and broadleaf weeds in spring, durum, and winter wheat in the Prairie Provinces and Interior Region of BC.

Chemistry Assessment

CAZADO is formulated as a suspension containing pinoxaden at a concentration of 100 g/L and thien carbazone-methyl at a concentration of 8.3 g/L. This end-use product has a density of 0.96-1.02 g/mL and pH of 4.1 (1% solution). The required chemistry data for CAZADO have been provided, reviewed and found to be acceptable.

Health Assessments

CAZADO is of low acute toxicity via the oral, dermal, and inhalation routes of exposure. It is non-irritating to the eyes and skin, and it is a skin sensitizer.

The use of CAZADO on spring, durum, and winter wheat can be supported from an occupational exposure perspective as it fits within the registered use pattern of pinoxaden and thien carbazone-methyl. As such, the use of CAZADO is not expected to result in potential occupational or bystander exposure over the registered use of the two active ingredients pinoxaden and thien carbazone-methyl. No health risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

For thien carbazone-methyl, previously reviewed data from metabolism studies and field trials conducted in/on wheat were reassessed in the framework of this application and were found to be acceptable to support the registration of CAZADO on wheat.

For pinoxaden, new metabolism data and residue data from field trials conducted in Canada were submitted to support the use of CAZADO on wheat. Pinoxaden, and thien carbazone-methyl, were applied to wheat at the target rate, and the wheat was harvested

according to label directions. Side-by-side trials were conducted to compare residues of pinoxaden when co-formulated with different herbicide safeners, and it was found that residues remained qualitatively and quantitatively comparable regardless of the safener. Furthermore, previously reviewed pinoxaden residue data from field trials conducted in/on wheat were reassessed in the framework of this application, and a processing study in treated wheat was also reassessed to determine the potential for concentration of residues of pinoxaden into processed commodities.

Based on this assessment, residues of pinoxaden and thien carbazole-methyl are not expected to be greater than those from the registered uses and will be covered by the established maximum residue limits (MRLs). Consequently, dietary exposure to residues of pinoxaden and thien carbazole-methyl is not expected to increase with the registration of CAZADO and will not pose health risks of concern to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

The use of CAZADO on wheat is within the registered use patterns for pinoxaden and thien carbazole-methyl; however, CAZADO is a new combination of active ingredients. Studies on aquatic organisms conducted using a similar end-use product were submitted to assess whether CAZADO would be more toxic than each component alone. The studies showed that toxicity is similar to that of thien carbazole-methyl alone. Therefore, the risk is acceptable when CAZADO is used in accordance with the label, which includes statements to mitigate risks to the environment.

Value Assessment

The registration of CAZADO provides users with the first herbicide product co-formulated with pinoxaden and thien carbazole-methyl to control both grassy and broadleaf weeds in spring, durum, and winter wheat. In addition, since pinoxaden and thien carbazole-methyl are from two herbicide mode of action groups, CAZADO may help manage the development of herbicide-resistant biotypes of grass weeds.

Value information consisted of scientific rationales, precedent registrations, and data from combined efficacy and crop tolerance trials conducted in the Canadian Prairies in 2021 and 2022. This information collectively demonstrated that the performance, in terms of efficacy and crop tolerance, of CAZADO is acceptable and comparable to that of precedent products when they are applied as per their respective label instructions. Therefore, CAZADO was concluded to have acceptable value.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information acceptable to support the registration of CAZADO.

References

PMRA

Document

Number	Reference
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