Health Canada Santé Canada

Evaluation Report for Category B, Subcategories 2.1, 2.3, 2.4, 3.1, 3.10 Application

Application Number: 2022-4794
Application: New End-use Product (Product Chemistry) – Guarantee, Identity of Formulants, and Proportion of Formulants; New Product Label – Application Rate Increase or Decrease, Tank Mixes
Product: Shenzi 400 SC Insecticide
Registration Number: 34974
Active ingredient (a.i.): Chlorantraniliprole
PMRA Document Number : **3510572**

Purpose of Application

The purpose of this application was to register the commercial end-use product, Shenzi 400 SC Insecticide, for use on a variety of field and greenhouse crops to control various insects.

Chemistry Assessment

Shenzi 400 SC Insecticide is formulated as a suspension containing chlorantraniliprole at a concentration of 400 g/L. This end-use product has a density of 1.1608 – 1.1771 g/mL and pH of 6.4. The required chemistry data for Shenzi 400 SC Insecticide have been provided, reviewed and found to be acceptable.

Health Assessments

Shenzi 400 SC Insecticide is of low acute toxicity via the oral, dermal, and inhalation routes. It is non-irritating to the eyes and skin, and is not a dermal sensitizer.

The use of Shenzi 400 SC Insecticide on potatoes, root and tuber vegetables group, fruiting vegetables group, brassica vegetables group, leafy vegetables group, legume vegetables group, cucurbit vegetables group, corn (field, pop, sweet, and seed), grass forage, fodder, hay group, non-grass animal feeds group, mint, okra, peanuts, green onion subgroup, globe artichokes, hops, greenhouse cucumbers, greenhouse tomatoes, greenhouse eggplant, greenhouse peppers, oilseeds group and cereals, pome fruit group, stone fruit group, caneberries subgroup, bushberries subgroup, cranberries, grapes, tree nuts group, and low growing berries subgroup is not expected to result in potential occupational or bystander exposure over the registered use of chlorantraniliprole. No risks of concern are expected when workers follow label directions and wear personal protective equipment as stated on the label.

No new residue data for chlorantraniliprole in root and tuber vegetables, leafy vegetables, Brassica vegetables, legume vegetables, fruiting vegetables, cucurbit vegetables, pome fruit, stone fruit, tree nuts, cereals, oilseeds, green onions, caneberries, bushberries, low growing berries, corn (field, pop, sweet), mint, okra, peanuts, globe artichokes, hops, cranberries, or grapes were submitted or were required to support the registration of Shenzi

400 SC Insecticide. Previously reviewed residue data from field trials conducted in/on various crops were reassessed in the framework of this application. In addition, processing studies in treated apples, mint, grapes, tomatoes, plums, cottonseed (translated to canola), peanuts, and wheat were also reassessed to determine the potential for concentration of residues of chlorantraniliprole into processed commodities.

In addition, the anticipated residues of chlorantraniliprole in animal matrices are expected to be covered by the currently established maximum residue limits (MRLs), when feed-items derived from the raw agricultural commodities (RACs) are treated with Shenzi 400 SC Insecticide and fed to livestock.

Exposure to residues of chlorantraniliprole from the registration of Shenzi 400 SC Insecticide in various field and greenhouse crops are not likely to result in any dietary risks for the general population and all subpopulations, including infants, children, adults, and seniors.

Environmental Assessment

The uses on the Shenzi 400 SC Insecticide label are within the currently registered use pattern of chlorantraniliprole. No additional risk is expected when Shenzi 400 SC Insecticide is used in accordance with the label, which includes statements to mitigate risks to the environment.

Value Assessment

The submitted value information (nine field efficacy trials and a scientific rationale to extrapolate from two cited precedent products) demonstrated biological equivalency of Shenzi 400 SC Insecticide to two precedent products. The submitted trials demonstrated that Shenzi 400 SC Insecticide provided similar control of tested insect pests as the precedent products. The submitted value information was sufficient to support extrapolation of all use claims from the precedent product labels to the label of Shenzi 400 SC Insecticide.

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 Shenzi 400 SC Insecticide.

References

PMRA Document Number	Reference
3391105	2021, Shenzi SC Insecticide Product Identity and Composition, Description of Materials Used, Description of the Formulation Process, Discussion of the Formation of Impurities, and Certified Limits, DACO: 3.2.1,3.2.2,3.2.3,3.3.1 CBI
3391111	2021, Accelerated Storage Stability and Corrosion Characteristics of GPI 220: Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC)., DACO: 3.5.1,3.5.10,3.5.14,3.5.7

3391113	2021, Appearance (Colour, Physical State and Odour) of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC)., DACO: 3.5.1,3.5.2,3.5.3
3391114	2021, Density of GPI 220: Chlorantraniliprole 400 g/L SC (Equivalent to Chlorantraniliprole 34.2% w/w SC), DACO: 3.5.6
3391115	2021, Explodability of GPI 220: Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2 % w/w SC)., DACO: 3.5.12
3391116	2021, Oxidation/Reduction Properties of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2 % w/w SC)., DACO: 3.5.8
3391117	2021, pH of GPI 220: Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC)., DACO: 3.5.7
3391118	2021, Viscosity of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2 % w/w), DACO: 3.5.9
3391120	2021, Flash Point of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2 % w/w SC), DACO: 3.5.11
3391121	2021, Validation of Analytical Method for Determination of Active Ingredient Content of GPI220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC), DACO: 3.4.1,3.4.2
3391089	2022, Additional Product Chemistry for Shenzi 400 SC Insecticide – Parent, DACO: 3.1.1,3.1.2,3.1.3,3.1.4,3.5.13,3.5.15,3.5.4,3.5.5
3391106	2021, Acute Oral Toxicity Study of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC) in Rats, DACO: 4.6.1
3391108	2021, Acute Dermal Toxicity Study of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC) in Rats, DACO: 4.6.2
3391119	2021, Acute Inhalation Toxicity Study of GPI 220: Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC), DACO: 4.6.3
3391109	2021, Acute Eye Irritation Study of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC) in Rabbits, DACO: 4.6.4
3391107	2021, Acute Dermal Irritation Study of GPI 220 : Chlorantraniliprole 400 g/L SC (equivalent to Chlorantraniliprole 34.2% w/w SC) in Rabbits., DACO: 4.6.5
3391110	2021, Skin Sensitisation Study of GPI 220: Chlorantraniliprole 400 g/L SC (Equivalent to Chlorantraniliprole 34.2% w/w SC) in Guinea Pigs., DACO: 4.6.6
3391085	2022, Summary of Value for Shenzi 400 SC Insecticide, DACO: 10.1,10.2.1,10.2.2,10.2.3.1,10.2.3.3,10.3.1,10.3.2,10.4,10.5.1,10.5.2,10.5.3,10.5.4
3391091	2022, Efficacy and Phytotoxicity - Apple, DACO: 10.2.3.3
3391092	2021, Efficacy and Phytotoxicity - Cucurbit, DACO: 10.2.3.3
3391093	2022, Efficacy and Phytotoxicity - Grape, DACO: 10.2.3.3
3391094	2022, Efficacy and Phytotoxicity - Potato, DACO: 10.2.3.3
3391095	2022, Efficacy and Phytotoxicity - Potato, DACO: 10.2.3.3
3391096	2021, Efficacy and Phytotoxicity - Tomato, DACO: 10.2.3.3
3391097	2021, Efficacy and Phytotoxicity - Leafy Vegetable, DACO: 10.2.3.3
3391098	2022, Efficacy and Phytotoxicity - Cabbage (Brassicae Vegetable), DACO: 10.2.3.3
3391099	2021, Efficacy and Phytotoxicity -Pulse, DACO: 10.2.3.3
3391100	2022, Efficacy and Phytotoxicity -Sweet Corn, DACO: 10.2.3.3
3391101	2022, Efficacy and Phytotoxicity -Sweet Corn, DACO: 10.2.3.3
3391102	2022, Efficacy and Phytotoxicity -Sweet Corn, DACO: 10.2.3.3
3391127	2022, Summary of Value for Shenzi 400 SC Insecticide, DACO: 10.2.3.1,10.3.2