

# Evaluation Report for Category B, Subcategory 2.4, 2.6, 3.9, 3.11, 3.12 Application

**Application Number:** 2009-1426

**Application:** B.2.4 (changes in product chemistry – proportion of formulants)

B.2.6 (changes in product chemistry – new combination of TGAIs)

B.3.9 (changes to product label – level of control)
B.3.11 (changes to product label – new pests)
B.3.12 (changes to product label – new site or host).

**Product:** K9 Advantix IGR 55

**Registration Number:** 29780

Active ingredients (a.i.): Imidacloprid [IMI], Permethrin [PFL], Pyriproxyfen [PRX]

PMRA Document Number: 1945078

## **Purpose of Application**

The purpose of this application is to register a new end-use product, K9 Advantix IGR 55, based on a precedent product, K9 advantix 55 Flea and Tick Adulticide (Registration Number 27660). Related submissions 2009-1397, 2009-1398 and 2009-1399 are for the same product, packaged in different sized doses, for larger and smaller hosts.

## **Chemistry Assessment**

K9 Advantix IGR 55 is formulated as a solution containing imidacloprid at a nominal concentration of 8.8 %, Permethrin at 44.0 % and Pyriproxyfen at 0.44%. This end-use product has a density of 1.14 g/cm<sup>3</sup> and pH of 3.74. With the exceptions of storage stability and corrosion characteristics, the chemistry requirements for K9 Advantix IGR 55 are complete.



#### **Health Assessments**

K9 Advantix IGR 55 is of low acute toxicity by the oral, dermal and inhalation routes, is moderately irritating to the eye and mildly irritating to the skin, and is not a dermal sensitizer. No adverse effects were noted at the exaggerated dose used in a Safety to Treated Animals study conducted using adult dogs. The results of this study indicate that the product is deemed safe to use on adult dogs when applied according to label directions. However, adverse effects were observed in a similar study in puppies at exaggerated doses, and no assurance of the safety of the products at the label rate was demonstrated in the study. Therefore, the study does not provide assurance that the product is safe for use on puppies.

An occupational risk assessment was not performed for K9 Advantix IGR 55 because the use pattern fits within the existing use profiles for pyriproxyfen, imidacloprid and permethrin. The potential exposure to the applicator and the post-applicator is not expected to exceed that of registered products.

A food residue assessment was not required for this application.

#### **Environmental Assessment**

An environmental assessment was not required for this application.

#### Value Assessment

K9 Advantix IGR 55 contains a combination of active ingredients, which are used to kill all stages (i.e., eggs, larvae and adults) of fleas and adult ticks on dogs. It is a similar product to K9 Advantix 55 Flea and Tick Adulticide (Registration Number 27660; 8.8% imidacloprid and 44% permethrin), which is used to kill the adults of fleas and ticks on dogs.

K9 Advantix IGR 55 also contains 0.44% pyriproxyfen, which prevents the eggs and larvae of fleas from developing into adults. Pyriproxyfen is registered at similar concentrations in other products (i.e., Advantage Plus 55; Registration Number 27582; 9.1% imidacloprid and 0.46% pyriproxyfen).

#### **Conclusion**

The PMRA has completed an evaluation of the subject application and has found the information sufficient to register the new end-use product, K9 Advantix IGR 55.

# References

PMRA Number	Reference
1747332	2008, Formulation Type, DACO: 3.5.4 CBI
1747334	2008, Oxidizing or Reducing Action, DACO: 3.5.8 CBI
1747333	2008, Container Material and Description, DACO: 3.5.5
1747336	2008, Explodability, DACO: 3.5.12 CBI
1747341	2008, K9 Advantix IGR 10, 20, 55, 100, DACO: 10.1, 10.2.3.1, 10.2.3.2, 10.3.1, 10.3.2
1747342	2008, Description of Pest Problem, DACO: 10.2.2
1747343	2008, Mode of Action, DACO: 10.2.1
1747344	2007, Chemistry Evaluation for K9 Advantix plus Pyriproxifen (Containing Imidacloprid, Pyriproxifen and Permethrin), DACO: 3.2.1, 3.2.2, 3.2.3, 3.3.1, 3.4.1, 3.4.2 CBI
1747346	2006, Chemistry Evaluation for K9 Advantix plus Pyriproxifen (Containing Imidacloprid, Pyriproxifen and Permethrin), DACO: 3.5.11, 3.5.2, 3.5.6, 3.5.7, 3.5.9 CBI
1747354	2006, Acute Oral Toxicity Up and Down Procedure in Rats, DACO: 4.6.1
1747355	2006, Acute Dermal Toxicity Study in Rats - Limit Test, DACO: 4.6.2
1747356	2006, Acute Inhalation Toxicity Study in Rats - Limit Test, DACO: 4.6.3
1747358	2006, Primary Eye Irritation Study in Rabbits, DACO: 4.6.4
1747359	2006, Primary Skin Irritation Study in Rabbits, DACO: 4.6.5
1747360	2006, Dermal Sensitization Study in Guinea Pigs (Buehler Method), DACO: 4.6.6
1747362	2006, Evaluation of the General Safety of Imidacloprid/Permethrin/Pyriproxyfen Spot - On Formulation in Adult Beagle Dogs, DACO: 4.9
1747363	2006, Evaluation of the General Safety of Imidacloprid/Permethrin/Pyriproxyfen Spot - On Formulation in 7-Week-Old Puppies, DACO: 4.9
1790298	2009, K9 Advantix IGR-blank scan M854S04, DACO: 3.4.1 CBI
1917157	Health Canada (2010). Evaluation of Flea and Tick Control Products. March $16^{\rm th}$ 2010.

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