

## Evaluation Report for Category B, Subcategory 2.3, 2.4 Application

**Application Number:** 2007-7652  
**Application:** B.2.3 (Product chemistry - identity of formulants)  
B.2.4 (Product chemistry - proportion of formulants)  
**Product:** Horizon 240EC NPE-Free Herbicide  
**Registration Number:** 29518  
**Active ingredients (a.i.):** Clodinafop-propargyl (CFP)  
**PMRA Document Number:** 1837412

### Purpose of Application

The purpose of this application was to register Horizon 240 EC NPE-Free Herbicide containing 240 g/L clodinafop-propargyl for the selective control of annual grassy weeds in spring wheat and durum wheat in the prairie provinces and Peace River, Okanagan and Creston Flats region of British Columbia. All use patterns and pest claims for Horizon 240 EC NPE-Free Herbicide are currently registered and included on the precedent product label of Horizon 240EC Herbicide.

### Chemistry Assessment

Horizon 240EC NPE-Free Herbicide is formulated as an emulsion containing clodinafop-propargyl at a nominal concentration of 240 g/L. This end-use product has a density of 1.13 g/mL and a pH between 5 and 7. The chemistry requirements for Horizon 240EC NPE-Free Herbicide are complete.

### Health Assessments

Horizon 240EC NPE-Free Herbicide is of low acute toxicity by the oral and dermal routes in rats. It is of slight toxicity via inhalation. Horizon 240EC NPE-Free Herbicide is slightly irritating to the skin and mildly irritating to the eyes of rabbits. This product is a dermal sensitizer in guinea pigs.

The use of Horizon 240EC NPE-Free Herbicide should not result in unacceptable exposure to the active ingredient, clodinafop-propargyl. No unacceptable risk is expected when workers follow the label directions and wear the personal protective equipment identified on the label.

Analytical methodology and bridging residue data for the active ingredient clodinafop-propargyl and a safener in wheat were submitted to support the registration of the new formulations containing these compounds. The side-by-side field trials showed that residues of clodinafop-propargyl, a safener and the metabolites CGA-193469 and CGA-153433 resulting from applications of the new and registered formulations were very similar. Residues of clodinafop-propargyl and the safener on treated wheat grown and utilized for food and feed resulting from the use of the end-use product Horizon 240EC NPE-Free Herbicide are expected to be covered by the maximum residue limits (MRLs) being promulgated for clodinafop-propargyl and established for the safener, since the use directions, including target crops, application rates, tank-mix partners and restrictions, are identical to the use pattern of the currently registered end-use product Horizon 240EC Herbicide. As such, there is no expectation of an increase in residues or in dietary exposure to clodinafop-propargyl or the safener resulting from the use of Horizon 240EC NPE-Free Herbicide.

### **Environmental Assessment**

As the accepted use pattern and label is similar to that of Horizon 240EC Herbicide (Registration Number 24067) which contains the same active ingredient, the EAD does not require further information. There is no potential increase in the environmental exposure and impact from that of the currently registered use pattern of clodinafop-propargyl. Environmental concerns are mitigated with label statements.

### **Value Assessment**

Efficacy and crop safety data from 23 field research trials conducted at various locations over 1 year (2006) were submitted to establish agronomic equivalence between Horizon 240 EC NPE-Free Herbicide and the precedent product, Horizon 240EC Herbicide when applied as alone treatment (i.e., herbicide + Score Adjuvant) and in combination with numerous pesticide tank mix partners. Treatments of Horizon 240 EC NPE-Free Herbicide alone and in combination with several representative tank mix partners were directly compared to those of Horizon 240 EC Herbicide alone and in combination with the same tank mix partners.

Based on the efficacy and crop safety information made available, the agronomic equivalence of Horizon 240 EC NPE-Free Herbicide with Horizon 240EC Herbicide was established. The registration of Horizon 240 EC NPE-Free Herbicide was supported from a value perspective for the labeled uses.

### **Conclusion**

The PMRA completed an evaluation of the subject application and found the information sufficient to support full registration of Horizon 240 EC NPE-Free Herbicide for the labeled use sites.

### **References**

- 1490898 2007, HORIZON 240EC NPE FREE - Product Identification, DACO: 3.1
- 1490899 2007, HORIZON 240EC NPE FREE - Formulating Plant's Name and Address,

DACO: 3.1.2 CBI

1490900 2007, HORIZON 240EC NPE FREE - Description of Starting Materials, DACO: 3.2.1 CBI

1490902 2007, HORIZON 240EC NPE FREE - Description of the Formulation Process, DACO: 3.2.2 CBI

1490903 2007, HORIZON 240EC NPE FREE - Discussion of Formation of Impurities, DACO: 3.2.3 CBI

1490904 2007, HORIZON 240EC NPE FREE - Establishing Certified Limits, DACO: 3.3.1 CBI

1490905 2007, HORIZON 240EC NPE FREE - Enforcement of Analytical Method, DACO: 3.4.1 CBI

1490906 2007, HORIZON 240EC NPE FREE - Chemical and Physical Properties, DACO: 3.5

1777792 2009, Contents of Active Ingredients (S) after storage in Fluorinated HDPE For 1 year at 20C\_Final Report\_A8588N\_HORIZON 240EC NPE FREE, DACO: 3.5.10 CBI

1777793 2009, Corrosion Characteristics after storage of 1 year at 20C\_Final Report\_A8588N\_HORIZON 240EC NPE FREE, DACO: 3.5.14 CBI

1835069 2009, Other Chemistry information for Horizon 240EC NPE free- Response to Clarifax from Nov 20 2009, DACO: 3.7 CBI

1490907 2007, HORIZON 240EC NPE FREE - Summary of Acute Toxicology Studies, DACO: 4.1

1490908 2007, HORIZON 240EC NPE FREE - Acute Oral Toxicity Up and Down Procedure in Rats, DACO: 4.6.1

1490909 2007, HORIZON 240EC NPE FREE - Acute Dermal Toxicity in Rats, DACO: 4.6.2

1490910 2007, HORIZON 240EC NPE FREE - Acute Inhalation Toxicity in Rats, DACO: 4.6.3

1490911 2007, HORIZON 240EC NPE FREE - Acute Eye Irritation Study in Rabbits with Clodinafop Propargyl EC (240) (A8588N), DACO: 4.6.4

1490912 2007, HORIZON 240EC NPE FREE - Primary Skin Irritation Study in Rabbits with Clodinafop Propargyl EC (240) (A8588N), DACO: 4.6.5

1490913 2007, HORIZON 240EC NPE FREE - Dermal Sensitization Test - Buehler Method, DACO: 4.6.6

1704157 2009, 4.6.1-1 - Acute toxicity Studies - HORIZON 240EC NPE FREE - Response to Deficiencies, DACO: 4.6.1,4.6.2,4.6.3,4.6.4,4.6.5,4.6.6

1767290 2009, Response to Clarifax\_ HORIZON 240 NPE Free\_ submission 2007-7652, DACO: 4.1

1767291 2009, HORIZON 240EC NPE FREE - Primary Eye Irritation Study with Clodinafop-Propargyl 240 EC (A8588P) in Rabbits, DACO: 4.6.4

1490920 2002, HORIZON 240EC NPE FREE - Method Analysis for the Determination of Clodinafop-propargyl with it's Metabolite CGA -193469 and Cloquintocet-mexyl with its metabolite CGA-153433 in Wheat Forage, Grain and Straw by LC/MS/MS, DACO: 7.2.1

1490922 2007, HORIZON 240EC NPE FREE - Residue Levels on Wheat from Trials Conducted with HORIZON 240EC in Canada during 2006, DACO: 7.4.1

1490923 2007, HORIZON 240EC NPE FREE -Value Summary, DACO: 10.1, unpublished.

1490924 2007, HORIZON 240EC NPE FREE -Efficacy Summary, DACO: 10.2.3.1, unpublished.

1490927 2007, HORIZON 240EC NPE FREE -Efficacy Trials, DACO: 10.2.3.3, unpublished.  
1490928 2007, HORIZON 240EC NPE FREE -Tolerance Summary, DACO: 10.3.1,  
unpublished.  
1490929 2007, HORIZON 240EC NPE FREE -Tolerance Trials, DACO: 10.3.2,  
unpublished

ISSN: 1911-8082

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