



## Evaluation Report for Category B, Subcategory B.3.13, B.3.4-S-A-EP Application

**Application Number:** 3006-3136  
**Application:** Cat B.3.13 (Application method), Cat B.3.4 (precautions)  
**Product:** REFINE SG Herbicide  
**Registration Number:** 28285  
**Active ingredients (a.i.):** Thifensulfuron methyl (33.35%) and Tribenuron methyl (16.65%).  
**PMRA Document Number :** 1463919

### Background

REFINE SG Herbicide has been registered since March 30, 2006. REFINE SG Herbicide is registered for the control of many broadleaf weeds on wheat (spring, winter, durum), spring barley, oat, and established grass species for forage and seed production only. For specific details of uses, application rates and methods, precautions, restrictions, and personal protective equipment requirements, refer to the product label.

### Purpose of Application

The purpose of this application was to add an aerial application on wheat (spring, winter or durum), spring barley and oats to the end use product REFINE SG Herbicide .

### Chemistry Assessment

A chemistry assessment was not required since there was no change to product chemistry.

### Health Assessments

Residues of tribenuron-methyl and thifensulfuron-methyl on spring barley, wheat and oats resulting from the aerial application use of REFINE SG Herbicide are expected to be covered by the established maximum residue limit (MRL) of 0.05 ppm each for tribenuron-methyl, and the 0.1 ppm General Regulations (Table II, Division 15 of the Food and Drugs Act and Regulations) for thifensulfuron-methyl, since all other use directions are identical to the currently registered product. There is no expectation of increased dietary exposure from the petition to add an aerial application use to the label.

The addition of an aerial application use on spring barley, wheat and oats to the REFINE SG Herbicide label will not pose an unacceptable risk to any segment of the population, including infants, children and seniors.

Estimated exposure for handlers and workers is considered acceptable. Exposure to re-entry workers after aerial application is not expected to increase from current exposure following ground application.

## **Environmental Assessment**

An environmental assessment of REFINE SG Herbicide for aerial application on wheat (spring, winter or durum), spring barley and oats has indicated that buffer zones are required for the protection of aquatic and terrestrial habitats. Buffer zones of 1 and 225 m were determined for the protection of aquatic and terrestrial habitats, respectively. Environmental concerns have been mitigated through adequate statements on the product label.

## **Value Assessment**

Data from a total of 13 trials with spray volume of 47 or 56 were submitted to support the ground application of REFINE Extra 75DF with a minimum of 55 L spray volume per hectare. Results from these trials indicated that the level of weed control or suppression were similar when REFINE Extra 75DF alone or in tank mix with the listed herbicides were applied with water volumes of 47 to 56 L/ha versus 103 to 112 L/ha. The reported tolerance of spring wheat and barley was also similar regardless of water volume employed. Therefore, a reduction in weed control or increase in crop injury was not anticipated when REFINE Extra 75DF is applied by air with spray volumes from 25 to 50 L water/ha.

As the agronomic equivalency between REFINE SG Herbicide and REFINE Extra 75DF was established, the data extrapolation in lieu of product efficacy and crop tolerance is acceptable between these two herbicides. Therefore, the addition of an aerial application to the REFINE SG Herbicide label can be supported from a value standpoint.

## **Conclusion**

The PMRA has completed an evaluation of the subject application and has found the information sufficient to amend the registration of REFINE SG Herbicide to add an aerial application on wheat (spring, winter or durum), spring barley and oats to the product label.

## **References**

### **A. List of Studies/Information Submitted by Registrant**

#### Value Assessment

PMRA 1224605 Value and efficacy studies: Waiver request. E.I. du Pont Canada Company. April 6, 2006. DACO 10.1 and 10.2.3.3.

ISSN: 1911-8082

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