

## Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4, 2.6, 3.1 Application

**Application Number:** 2017-5942  
**Application:** New End Use Product: Changes to Product Chemistry and Application Rate  
**Product:** Inferno Trio Herbicide  
**Registration Number:** 33273  
**Active ingredients (a.i.):** Carfentrazone-ethyl, Florasulam, and Flucarbazone (present as flucarbazone-sodium)  
**PMRA Document Number:** 2868679

### Purpose of Application

The purpose of this application was to register the end-use product Inferno Trio Herbicide for preplant and pre-emergence control of grass and broadleaf weeds in spring wheat (excluding durum wheat).

### Chemistry Assessment

Inferno Trio Herbicide is formulated as an emulsifiable concentrate containing flucarbazone (present as flucarbazone-sodium), florasulam and carfentrazone-ethyl at concentration of 141 g/L, 50 g/L and 175 g/L, respectively. This end-use product has a density of 1.098 g/mL and pH of 4.65. The required chemistry data for Inferno Trio Herbicide have been provided, reviewed and found to be acceptable.

### Health Assessments

Inferno Trio Herbicide was of low acute toxicity in rats via the oral, dermal and inhalation routes of exposure. It was not irritating to the eyes, and slightly irritating to the skin, of rabbits. It is a skin sensitizer in mice.

The use Inferno Trio Herbicide for preplant and pre-emergence weed control in spring wheat (excluding durum wheat) is not expected to result in potential occupational or bystander exposure over the previously registered use of flucarbazone-sodium, florasulam and carfentrazone-ethyl. No health 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 carfentrazone-ethyl, florasulam, and flucarbazone-sodium in spring wheat were submitted to support the registration of Inferno Trio Herbicide containing these active ingredients. Previously reviewed residue data from field trials conducted with

carfentrazone-ethyl, florasulam, and flucarbazone-sodium were re-assessed in the framework of this petition. In addition, processing studies in treated cereals were also re-assessed to determine the potential for concentration of residues of these active ingredients into processed commodities.

Residues of carfentrazone-ethyl, florasulam, and flucarbazone-sodium in/on treated wheat food commodities are not expected to increase and will be covered by the maximum residue limits (MRLs) established for these active ingredients. Consequently, the dietary exposure to residues of carfentrazone-ethyl, florasulam, and flucarbazone-sodium is not expected to increase with the registration of Inferno Trio Herbicide and will not pose health risks of concern to any segment of the population, including infants, children, adults and seniors.

### **Environmental Assessment**

The use Inferno Trio Herbicide for preplant and pre-emergence weed control in spring wheat (excluding durum wheat) is not expected to pose additional environmental concerns over the previously registered use of flucarbazone-sodium, florasulam and carfentrazone-ethyl.

### **Value Assessment**

The co-formulation of flucarbazone, florasulam and carfentrazone-ethyl will provide multiple modes of action to control both broadleaf and grassy weeds before planting or prior to crop emergence, helping with resistance management and residual weed control.

Value information submitted for review consisted of data from replicated field trials and scientific rationales including extrapolations from registered uses. Based on the weight of evidence, the registration of Inferno Trio Herbicide is supported from a value standpoint.

### **Conclusion**

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of Inferno Trio Herbicide.

## References

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