

Evaluation Report for Category B, Subcategory 2.1, 2.3, 2.4 Application

Application Number: 2008-0344
Application: B.2.1- New Guarantee
B.2.3 – New Identity of Formulants
B. 2.4 – New Proportion of Formulants
Product: Liberate Adjuvant
Registration Number: 29491
Active ingredients (a.i.): Surfactant Blend
PMRA Document Number : 1911826

Purpose of Application

The purpose of this application was to register a new non-ionic surfactant, Liberate Adjuvant, for use in combination with a number of post-applied herbicides on corn (Ultim + Distinct, Accent + Distinct, Elim + Dual II Magnum + Banvel II, Accent + Peak + Banvel II and Ultim + Aatrex 480 + Callisto), soybeans (Pursuit and Reflex), canola (Pursuit and Odyssey), peas (Pursuit and Odyssey) and wheat (Everest, Refine Extra and Adrenalin) and a post-applied fungicide on wheat (Folicur).

Chemistry Assessment

Liberate Adjuvant is an emulsion containing lecithin, methyl esters of fatty acids, and alcohol ethoxylates at a nominal concentration of 100 %. This product has a density of 0.975 g/mL and a pH of 6.9 – 7.1 for a 1 % solution in water. The product contains the allergen soy. The chemistry requirement for Liberate Adjuvant have been completed.

Health Assessments

The acute toxicity of Liberate Adjuvant is low by the oral (LD50 > 5000 mg/kg bw, rats), dermal (LD50 > 2000 mg/kg bw, rabbits) and inhalation (LC50 > 2.10 mg/L, rats) routes of exposure. Primary irritation is minimal to the eye and moderate to the skin of rabbits. It is not a dermal sensitizer in guinea pigs.

Environmental Assessment

The ingredients in the surfactant blend are all formulants with List 3 designation and do not meet the Toxic Substances Management Policy (TSMP) criteria for Track-1 substances. This product contains no formulants other than those listed on the surfactant blend. None of the formulants in this product were expected to pose a risk to the environment. Use of this product in place of the nonylphenol/nonylphenoethoxylate and aromatic petroleum distillate based adjuvants currently used as in many herbicide products may decrease the overall risk to the environment from herbicide use.

Value Assessment

Herbicide Assessment

To support the use of Liberate Adjuvant in combination with the herbicide tank mix partners, data were submitted from 33 field trials conducted in Alberta, Saskatchewan, Manitoba and Ontario over 4 years (2004, 2005, 2006 and 2007). Efficacy and crop safety (including yield) information for the requested herbicide tank mixes were directly compared to the registered herbicide plus non-ionic adjuvant combinations.

Based on data made available, the efficacy and crop safety of Liberate Adjuvant was determined to be comparable to that of Agral 90 when combined with the tank mix partners that appear on the Liberate label. Liberate Adjuvant was determined to be acceptable for registration.

Fungicide Assessment

Folicur 432 F is a foliar fungicide for suppression of fusarium head blight on wheat and control of foliar diseases on hybrid poplar and wheat.

To support the use of Liberate Adjuvant in combination with Folicur 432 F on wheat, four trials on wheat from Manitoba and Alberta, conducted in 2006 and 2007 under moderate to high disease pressure. Trials were inoculated with fusarium head blight or septoria blotch. In three of the four provided trials, addition of Agral 90 or Liberate Adjuvant resulted in consistent numerical increase in levels of control over Folicur 432 F alone. The highest levels of control were reached with Liberate Adjuvant 0.25% + Folicur 432 F. Since the addition of Liberate Adjuvant improved the efficacy of Folicur 432 F for suppression or control of two important wheat diseases, the use of Liberate Adjuvant at 0.25 % as a non-ionic surfactant to be tank mixed with Folicur 432 F on wheat is acceptable.

Conclusion

The PMRA has completed an assessment of the subject application and has found the information sufficient to support the registration of Liberate Adjuvant.

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