



## **Tank Mixes**

### **Evaluation Report for Category B, Subcategory 3.10 Application**

**Application Number:** 2017-1717  
**Application:** Tank Mixes  
**Product:** Liberate Adjuvant  
**Registration Number:** 29491  
**Active ingredients (a.i.):** Lecithin, methyl esters of fatty acids and alcohol ethoxylate  
**PMRA Document Number:** 2794137

#### **Background**

Liberate Adjuvant was first registered March 3, 2010. Liberate Adjuvant, a non-ionic surfactant containing 100% lecithin, methyl esters of fatty acids and alcohol ethoxylate, is registered for use with several herbicides and herbicide tank mixtures at concentrations of up to 0.25% v/v (2.5 L/1000 L spray solution). 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 expand the registration of Liberate Adjuvant to include its use at 0.25% v/v with Pardner Herbicide, Curtail M Herbicide and Lontrel 360 Herbicide and at 0.25-0.5% v/v with glyphosate herbicides as an alternative non-ionic surfactant for those uses in which a non-ionic surfactant is required as specified by the herbicide label.

#### **Chemistry Assessment**

A chemistry assessment was not required as there was no change to the product formulation.

#### **Health and Environmental Assessment**

Health and environmental assessments were not required as there was no change to host crops, application rates, methods, and timings.

#### **Value Assessment**

Liberate Adjuvant represents an additional non-ionic surfactant option for growers when applying Pardner Herbicide, Curtail M Herbicide, Lontrel 360 Herbicide and glyphosate herbicides for those uses requiring a non-ionic surfactant, as per the herbicide label.

Value information was submitted as small-scale field studies in which the performance of Liberate Adjuvant 0.25% v/v was directly compared to that of a non-ionic surfactant (i.e., cited precedent adjuvant) that was already registered for use at 0.2% v/v with Pardner Herbicide, Curtail M Herbicide and Lontrel 360 Herbicide. These herbicides require a non-ionic surfactant when applied in tank mixture with certain other herbicides.

The level of weed control achieved in treatments of a particular herbicide with Liberate Adjuvant was generally similar to that observed in treatments of the same herbicide with the cited precedent, including in those trials in which weed control was greater in treatments of the tested herbicide with an added adjuvant as compared to where no adjuvant was added. In trials in which crop injury was observed, the degree of crop injury was generally similar among adjuvant treatments, including the treatment of herbicide with no added adjuvant.

Value information in the form of use history was submitted in support of the use of Liberate Adjuvant with glyphosate. According to the use history information provided, Liberate Adjuvant is similar in performance to other non-ionic surfactants in use, including the cited precedent. This is consistent with the data submitted from small-scale field trials in which the performance of Liberate Adjuvant was concluded to be similar to that of the cited precedent. The concentration range of 0.25-0.5% is the same as that registered for another non-ionic surfactant that is registered for use with glyphosate and for which the performance of Liberate Adjuvant was demonstrated to be similar in the submitted field studies.

## **Conclusion**

The PMRA has conducted an assessment of the subject application and has determined that the submitted information is adequate to support the use of Liberate Adjuvant at the labelled concentrations with Pardner Herbicide, Curtail M Herbicide, Lontrel 360 Herbicide and glyphosate herbicides for those uses where a non-ionic surfactant is required as indicated by the herbicide label.

## References

### List of Studies/Information Submitted by Registrant

#### Value Assessment

2784306	2017, Efficacy, DACO: 10.2.3.3
2784308	2017, Efficacy, DACO: 10.2.3.3
2784309	2017, Efficacy, DACO: 10.2.3.3
2784310	2017, Efficacy, DACO: 10.2.3.3
2784311	2017, Efficacy, DACO: 10.2.3.3
2784312	2017, Efficacy, DACO: 10.2.3.3
2784313	2017, Efficacy, DACO: 10.2.3.3
2784314	2017, Efficacy, DACO: 10.2.3.3
2784315	2017, Efficacy, DACO: 10.2.3.3
2784316	2017, Efficacy, DACO: 10.2.3.3
2784317	2017, Efficacy, DACO: 10.2.3.3
2784318	2017, Efficacy, DACO: 10.2.3.3
2784319	2017, Efficacy, DACO: 10.2.3.3
2784320	2017, Efficacy, DACO: 10.2.3.3
2784321	2017, Efficacy, DACO: 10.2.3.3
2784323	2017, Efficacy, DACO: 10.2.3.3
2784324	2017, Efficacy, DACO: 10.2.3.3
2784327	2017, Efficacy, DACO: 10.2.3.3
2784328	2017, Efficacy, DACO: 10.2.3.3
2784329	2017, Efficacy, DACO: 10.2.3.3
2784330	2017, Efficacy, DACO: 10.2.3.3
2784331	2017, Efficacy, DACO: 10.2.4
2784332	2017, Efficacy, DACO: 10.2.3.3
2784333	2017, Efficacy, DACO: 10.2.3.3
2784334	2017, Efficacy, DACO: 10.2.3.3
2784335	2017, Efficacy, DACO: 10.2.3.3
2784336	2017, Efficacy, DACO: 10.2.3.3
2784337	2017, Efficacy, DACO: 10.2.3.3
2784338	2017, Efficacy, DACO: 10.2.3.3
2784339	2017, Efficacy, DACO: 10.2.3.3
2784340	2017, Efficacy, DACO: 10.2.3.3
2784341	2017, Efficacy, DACO: 10.2.3.3
2784342	2017, Efficacy, DACO: 10.2.3.3
2784343	2017, Efficacy, DACO: 10.2.3.3
2784344	2017, Efficacy, DACO: 10.2.3.3
2784345	2017, Efficacy, DACO: 10.2.3.3
2784346	2017, Efficacy, DACO: 10.2.3.3

2784347	2017, Efficacy, DACO: 10.2.3.3
2784348	2017, Efficacy, DACO: 10.2.3.3
2784349	2017, Efficacy, DACO: 10.2.3.3
2784350	2017, Use History, DACO: 10.2.4
2784351	2017, Use History, DACO: 10.2.4
2784352	2017, Use History, DACO: 10.2.4
2784353	2017, Use History, DACO: 10.2.4
2784354	2017, Efficacy, DACO: 10.2.3.3
2784355	2017, Efficacy, DACO: 10.2.3.3
2784356	2017, Efficacy, DACO: 10.2.3.3
2784357	2017, Efficacy, DACO: 10.2.3.3
2784358	2017, Efficacy, DACO: 10.2.3.3

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