

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

Application Number: 2014-5834
Application: New End-use Product Chemistry – Guarantee, identity and proportion of formulants
Product: AquaSurf Non-Ionic Spray Adjuvant
Registration Number: 32152
Active ingredients (a.i.): Surfactant blend
PMRA Document Number : **2508561**

Purpose of Application

The purpose of this application was to register a new adjuvant, AquaSurf Non-Ionic Spray Adjuvant, for use with terrestrial food and feed crop pesticide products, aquatic non-food pesticide products, industrial non-crop pesticide products and woodlot pesticide products. The products that this adjuvant could be used with include insecticides, fungicides, plant growth regulators and herbicides.

Chemistry Assessment

AquaSurf Non-Ionic Spray Adjuvant is formulated as a solution containing a surfactant blend at a nominal concentration of 100 %. This product has a specific gravity of 1.13 and pH of 6.62. The chemistry requirements for AquaSurf Non-Ionic Spray Adjuvant are complete.

Health Assessments

AquaSurf Non-Ionic Spray Adjuvant is considered to be of moderate acute oral toxicity, low acute dermal toxicity and slight acute inhalation toxicity. It is severely irritating to the eyes and skin of rabbits and not a dermal sensitizer in guinea pigs.

The approved uses for AquaSurf Non-Ionic Spray Adjuvant were compared to the use directions for each of the registered end-use products that will be mixed with this adjuvant. Based on this assessment, residues of the respective active ingredients for each end-use product spray mixture in/on food commodities resulting from the use of AquaSurf Non-Ionic Spray Adjuvant as per the approved label directions will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

Environmental Assessment

No adverse environmental impacts are expected from the use of AquaSurf Non-Ionic Spray Adjuvant for use as an adjuvant with herbicide, fungicide and insecticide products listed on the AquaSurf Non-Ionic Spray Adjuvant label. AquaSurf Non-Ionic Spray Adjuvant is applied at the same rates as other non-ionic surfactants, from 0.2-5 L/1000 L spray solution (0.02-0.5% v/v), depending on the specific pest control product.

Value Assessment

The applicant submitted reports of a total of 14 small-scale field performance studies. In each study, the performance of AquaSurf Non-Ionic Spray Adjuvant applied with a particular herbicide was compared to a treatment of that herbicide without adjuvant and/or one or more treatments of that herbicide applied with an adjuvant specified on the herbicide label.

Addition of AquaSurf Non-Ionic Spray Adjuvant to herbicide treatments resulted in improved weed control over the same treatments without adjuvant and/or similar control to that of the same herbicide treatments with a registered surfactant option. As performance of AquaSurf Non-Ionic Spray Adjuvant was demonstrated to be similar to other non-ionic surfactants that are labelled for use with tested herbicides belonging to multiple modes of action, it was concluded that AquaSurf Non-Ionic Spray Adjuvant applied with other listed pest control products would be of similar performance to other non-ionic surfactants that are registered for use with those products. In these studies, AquaSurf Non-Ionic Spray Adjuvant was similar to other surfactants that are registered for use with each of the tested herbicides in terms of crop safety, e.g., level of crop injury.

The availability of AquaSurf Non-Ionic Spray Adjuvant will provide growers and applicators an additional non-ionic surfactant option and, therefore, may provide users an economic benefit through increased competition in the marketplace.

Conclusion

The PMRA has completed a review of available information in support of AquaSurf Non-Ionic Spray Adjuvant, and has found it sufficient to grant a full registration for AquaSurf Non-Ionic Spray Adjuvant.

References

PMRA Document Number	Reference
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2481338	2014, Adjuvant Comparison, DACO: 10.2.3.3, 10.3.2

2481339	2014, Axial 100 Herbicide in Spring Wheat, DACO: 10.2.3.3, 10.3.2
2481340	2014, Efficacy of Centurion and Liberty 150 Herbicides in LL Canola, DACO: 10.2.3.3, 10.3.2
2481341	2013, Evaluation of Axial with Various Adjuvants, DACO: 10.2.3.3, 10.3.2
2481342	2013, Evaluation of Various Adjuvants with Mpower Aurora at 100 L/Ha, DACO: 10.2.3.3, 10.3.2
2481343	2013, Evaluation of Various Adjuvants with Mpower Aurora at 50 L/Ha, DACO: 10.2.3.3, 10.3.2
2481344	2014, Evaluation of Various Surfactants with Centurion/ Liberty in Invigor Canola, DACO: 10.2.3.3, 10.3.2
2481345	2013, Norac Bullwhip and Adjuvant Study in Durum Wheat, DACO: 10.2.3.3, 10.3.2
2481346	2013, Norac Bullwhip and Adjuvant Study in Wheat, DACO: 10.2.3.3, 10.3.2
2481347	2013, Norac Overdrive and Adjuvant Study in Grass Pasture, DACO: 10.2.3.3, 10.3.2
2481348	2013, Norac Pursuit and Adjuvant Study in Soybeans, DACO: 10.2.3.3, 10.3.2
2481349	2013, Norac Refine SG and Adjuvant Study in Wheat, DACO: 10.2.3.3, 10.3.2
2481350	2014, Performance of Centurion + Liberty 150 plus Adjuvants in LL Canola, DACO: 10.2.3.3, 10.3.2
2481352	2014, The Formulation Process of AquaSurf Adjuvant, DACO: 3.2.1, 3.2.2 CBI
2541074	2015, The Formulation Process for AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.2.1, 3.2.2 CBI
2481355	2014, Chemical and Physical Properties of AquaSurf Adjuvant, DACO: 3.5.1, 3.5.10, 3.5.11, 3.5.12, 3.5.13, 3.5.14, 3.5.15, 3.5.2, 3.5.3, 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.5.9 CBI
2541073	2015, Accelerated Storage Stability Studies for AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.5.10 CBI
2481356	2014, AquaSurf Adjuvant Oxidation/Reduction: Chemical Incompatibility, DACO: 3.5.8 C
2541071	2015, The pH of AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.5.7 CBI
2541072	2015, The Viscosity of AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.5.9 CBI
2541075	2015, The Flammability of AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.5.11 CBI
2541070	2015, The Specific Gravity of AquaSurf Non-Ionic Spray Adjuvant, DACO: 3.5.6 CBI
2481357	2014, Toxicology Summary AquaSurf Non-ionic Spray Adjuvant, DACO: 4.1

2481358	2014, 4.6.1-4.6.6 Acute Studies Request for Waiver AquaSurf Adjuvant, DACO: 4.1, 4.6.1, 4.6.2, 4.6.3, 4.6.4, 4.6.5, 4.6.6
2481360	HERA Secretariat, Brussels, Belgium, 2009, Human and Environmental Risk Assessment of ingredients of household cleaning products, 2009, DACO: 4.1, 4.6.1, 4.6.2, 4.6.3, 4.6.4, 4.6.5, 4.6.6, 9.5.4

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