

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

**Application Number:** 2017-5544  
**Application:** B.2.1: New Guarantee  
B.2.3: New Identity of Formulants  
B.2.4: New Proportion of Formulants  
**Product:** Norac MSO Spray Adjuvant  
**Registration Number:** 33193  
**Active ingredients (a.i.):** Surfactant Blend  
**PMRA Document Number:** 2907190

### Purpose of Application

The purpose of this application was to register a new adjuvant product, Norac MSO Spray Adjuvant (guarantee: 100% surfactant blend).

### Chemistry Assessment

Norac MSO Spray Adjuvant is formulated as a liquid containing a proprietary surfactant blend at a nominal concentration of 100%. This end-use product has a density of 0.887-0.905 kg/L and pH of 7.7. The required chemistry data for Norac MSO Spray Adjuvant have been provided, reviewed and found to be acceptable.

### Health Assessments

Norac MSO Spray Adjuvant is of low acute oral and dermal toxicity, is mildly to moderately irritating to the skin, and severely to extremely irritating to the eyes, but is not a dermal sensitizer.

This nonylphenol ethoxylate (NPE)-free Norac MSO Spray Adjuvant in combination with the end-use products listed on the adjuvant label for use on food, feed and non-crop land is not expected to result in increased potential occupational or bystander exposure over the registered uses of the end-use products. No health risks of concern are expected when workers follow label directions and wear the personal protective equipment as stated on the label.

No new residue data were submitted to support the registration of Norac MSO Spray Adjuvant (containing 100% surfactant blend). The use rates of Norac MSO Spray Adjuvant do not exceed the registered use rate of the non-ionic adjuvants, crop oil concentrates or wetting agents currently listed on each tank-mix partner label. When it is used together with end-use products containing various active ingredients, no change in the magnitude of residues is expected in animal and food commodities.

Therefore, dietary exposure to these active ingredients is not expected to increase, and will not pose an unacceptable risk to any segment of the populations, including infants, children, adults and seniors.

### **Environmental Assessment**

No new environmental data were submitted to support this submission and none are required. No additional risk to the environment is expected from the registration of the adjuvant, Norac MSO Spray Adjuvant. The Norac MSO Spray Adjuvant fits within the registered use pattern for soybean oil.

### **Value Assessment**

The applicant submitted reports from small-scale field performance studies. In these studies, the performance of Norac MSO Spray Adjuvant applied with particular herbicides was compared to a treatment of the same herbicides with a recommended adjuvant, as per the label of the herbicide and/or that of the adjuvant.

Addition of Norac MSO Spray Adjuvant to herbicide treatments resulted in a similar level of weed control to that of the same herbicide treatments with a registered surfactant option and improved control over the untreated check. A similar response was observed for when one tested herbicide was applied as a desiccant in dry bean. Crop injury was minimal and yield was not affected for all treatments. As performance, in terms of both efficacy and crop safety, of Norac MSO Spray Adjuvant was demonstrated to be similar to tested non-ionic surfactants that are labelled for use, it is reasonable to anticipate that NORAC MSO Spray Adjuvant applied with non-tested herbicides listed on the NORAC MSO Spray Adjuvant label would be similar to the non-ionic surfactants that are registered for use with those herbicides.

The availability of Norac MSO Spray Adjuvant will provide growers and applicators an additional MSO surfactant option and, therefore, may provide users an economic benefit through increased competition in the marketplace.

### **Conclusion**

The PMRA has reviewed the information provided in support of this adjuvant. Based on the results of this review, Norac MSO spray adjuvant is acceptable for registration.

## References

- 2805689 2017, WORD SUMMARY, DACO: 10.1
- 2805690 2017, EXCEL SUMMARY, DACO: 10.2.3.1,10.3.1
- 2805691 2014, 2014 Desiccation - Norac Adjuvants for flumioxazin (Valtera) in dry beans, DACO: 10.2.3.2(B)
- 2805692 2017, Evaluate efficacy of IMAZAMOX with various adjuvants, DACO: 10.2.3.2(B),10.3.2(A)
- 2805693 2017, Use history Template Use History Template, DACO: 10.2.4
- 2805694 2017, NORAC MSO Spray Adjuvant, Description of Benefits, DACO: 10.5
- 2805720 2017, Acute Toxicology Summary, Data Numbering Code: 4.1
- 2805721 2017, Request for Waiver, Acute Toxicology Data, Data Numbering Code: 4.6.1,4.6.2,4.6.3,4.6.4,4.6.5,4.6.6
- 2805701 2017, FORMULATING PLANT'S NAME AND ADDRESS, DACO: 3.1.1,3.1.2,3.1.3,3.1.4 CBI
- 2805702 2017, DESCRIPTION OF STARTING MATERIALS, DACO: 3.2.1,3.2.2 CBI
- 2805703 2017, ESTABLISHING CERTIFIED LIMITS, DACO: 3.3.1 CBI
- 2805704 2017, ENFORCEMENT ANALYTICAL METHOD, DACO: 3.4.1 CBI
- 2805705 2017, ENFORCEMENT ANALYTICAL METHOD, DACO: 3.4.1 CBI
- 2805706 2017, COLOUR, DACO: 3.5.1 CBI
- 2805707 2017, CORROSION CHARACTERISTICS, DACO: 3.5.10,3.5.14 CBI
- 2805708 2017, FLAMMABILITY, DACO: 3.5.11 CBI
- 2805709 2017, EXPLODABILITY, DACO: 3.5.12 CBI
- 2805710 2017, MISCIBILITY, DACO: 3.5.13 CBI
- 2805711 2017, DIELECTRIC BREAKDOWN VOLTAGE, DACO: 3.5.15 CBI
- 2805712 2017, PHYSICAL STATE, DACO: 3.5.2 CBI
- 2805713 2017, ODOUR, DACO: 3.5.3 CBI
- 2805714 2017, FORMULATION TYPE, DACO: 3.5.4 CBI
- 2805715 2017, CONTAINER MATERIAL AND DESCRIPTION, DACO: 3.5.5 CBI
- 2805716 2017, DENSITY OR SPECIFIC GRAVITY, DACO: 3.5.6 CBI
- 2805717 2017, PH, DACO: 3.5.7 CBI
- 2805718 2017, OXIDIZING OR REDUCING ACTION (CHEMICAL INCOMPATIBILITY), DACO: 3.5.8 CBI
- 2805719 2015, VISCOSITY, DACO: 3.5.9 CBI
- 2830409 2017, CORROSION CHARACTERISTICS, DACO: 3.5.10,3.5.14 CBI

## **A. Additional Information Considered**

### **i) Published Information**

#### **1.0 Product Characterization or Chemistry**

#### **2.0 Human and Animal Health**

| <b>PMRA #</b> | <b>Reference</b>  |
|---------------|---|
| 2481360       | HERA Secretariat, Brussels, Belgium, 2009, Human and Environmental Risk Assessment of ingredients of household cleaning products, 2009., Data Numbering Code: 4.1,4.6.1,4.6.2,4.6.3,4.6.4,4.6.5,4.6.6,9.5.4 |
| 2805722       | 2017, Phytosterols, Phytostanols and Their Esters, Data Numbering Code: 4.6.1,4.6.2,4.6.3,4.6.4,4.6.5,4.6.6   |

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