



ADVICE SUMMARY

APPLICATION FOR REGISTRATION OF A CHEMICAL PRODUCT

Product name: LOVELAND PRODUCTS MSO WITH LECI-TECH SPRAY ADJUVANT
Applicant: LOVELAND PRODUCTS, INC.
Product number: 70101
Application number: 62512

Purpose of Application and Description of Use: Registration of 630 g/L emulsifiable concentrate formulation of methylated vegetable oil or use as an adjuvant to use with herbicides.

Active Constituent(s): METHYL ESTERS OF VEGETABLE OIL

Regulatory Decision:

To grant the application subject to the following conditions:

Standard Conditions of Registration/Approval

1. Containers must meet AgVet Code Regulation 18
2. Label must contain a Date of Manufacture and Batch Number

For full conditions, refer to Standard Conditions for Applications on the APVMA website.

Non-Standard Conditions of Registration/Approval

Nil.

ADVICE

External Efficacy Reviewer

The proposed product Loveland Products MSO with Leci-Tech Spray Adjuvant (MSO) contains the same functional active constituent, the same formulation type and a subset of claims for use and label instructions as the nominated reference product. Bioequivalence data have been provided to establish that the efficacy and crop safety of the products are comparable.

Data from five field trials conducted in NSW during 2011 and 2012 demonstrate that Loveland Products MSO is equivalent, in terms of efficacy and crop safety, to the reference product when used at the same rate, for use with the herbicides nominated on the Loveland Products MSO label.

All five trials compared the performance of Loveland Products MSO and the reference product in mixes with all four herbicides nominated on the Loveland Products MSO label (clethodim, clodinafop, atrazine and simazine). Loveland Products MSO was applied at 0.25 and 0.5% v/v and the reference product was applied at 0.5 and 1% v/v in all trials with the herbicides, which were applied at the maximum label rate for each product for the particular crop/pest growth stages in each trial. The herbicide + adjuvant mixes were tested against Wild oats (*Avena fatua*), Silver grass (*Vulpia bromoides*), Annual ryegrass (*Lolium rigidum*) and Barley grass (*Hordeum leporinum*). Weed densities ranged from 5–300 plants/m² at growth stages from 2 leaf to mid tiller. In all cases sufficient challenge was presented to the herbicides to test whether the adjuvants compromised the efficacy of the herbicides. The efficacies achieved varied from 100% to 50% control but in all cases the results for Loveland Products MSO with the reference product, when applied at the same rate, were significantly the same.

The crop safety studies used the maximum herbicide label rates with Loveland Products MSO @ 0.25 and 0.5% (v/v) or the reference product @ 0.5 and 1% (v/v) on imidazolinone tolerant canola, triazine tolerant canola, wheat and lupins. Minor transient biomass reduction was recorded on triazine tolerant canola and lupins but appeared to be related to the herbicides (atrazine and simazine) rather than the adjuvants. There were no other crop safety effects reported and there were no significant differences in the results between the adjuvants. The trials demonstrated that the selectivity of the herbicides should not be compromised if they are used with Loveland Products MSO. The formulation that was used in the field trials is consistent with that proposed for registration as Loveland Products MSO.

The trials were carried out using sound scientific methodology by suitably qualified personnel. The trials successfully tested the efficacy and selectivity effects (crop safety) of the reference product and the proposed adjuvant product Loveland Products MSO. The trials were fully randomised and contained treated references and untreated controls. The results were analysed using acceptable statistical techniques (analysis of variance with means separated using least significant difference techniques) and gave significant results.

Based on the data provided, the APVMA is satisfied that Loveland Products MSO should be safe and efficacious when used according to the proposed label instructions.

Data relied on to provide the advice

Data No	Data Source*	Author(s)	Title	Date	Data Type	Data Sub-type	Authorising Party	Inherited Application No.
88632	S	D. Armitage	Comparison of MSO Lecitech to Hasten surfactant for the control of various grass weeds in Canola CV: Hyola 676, Wallendbeen	1st March 2012	Efficacy and safety	Efficacy	Applicant	
88633	S	D. Armitage	Comparison of MSO Lecitech to Hasten surfactant for the control of various grass weeds in Canola CV: Crusher TT, Temora NSW	12 January 2014	Efficacy and safety	Efficacy	Applicant	
88634	S	D. Armitage	Comparison of MSO Lecitech to Hasten surfactant for the control of various grass weeds in Wheat cv EGA Wedgetail, Temora NSW	16 January 2014	Efficacy and safety	Efficacy	Applicant	
88631	S	D. Armitage	Comparison of MSO Lecitech to Hasten surfactant for the control of various grass weeds in Canola CV: Tawriffic TT, Temora NSW	7 February 2012	Efficacy and safety	Efficacy	Applicant	
88630	S	D. Armitage	Comparison of Loveland's MSO Lecitech surfactant to Victoria chemicals Hasten surfactant for the control of grass weeds in Lupins (CV: Mandelup) when tank mixed with Clethodim, Aria Park NSW 2011	7 February 2012	Efficacy and safety	Efficacy	Applicant	

* S = Data submitted with the application

I = Data inherited (that is, referenced) from another application