

Evaluation Report for Category B, Subcategory 2.1, 2.6 Application

Application Number: 2014-1014
Application: New / Changes EP or MA Product Chemistry-Guarantee, New Combination of TGAIs
Product: Dynamax Adjuvant
Registration Number: 31814
Active ingredients (a.i.): Triglyceride Ethoxylate 10 POE, Siloxylated Polyether, and Surfactant Mixture
PMRA Document Number : 2525007

Purpose of Application

The purpose of this application was to register a new adjuvant, Dynamax Adjuvant, containing triglyceride ethoxylate 10 POE, siloxylated polyether, and surfactant mixture for use with several end use products.

Chemistry Assessment

Dynamax Adjuvant is formulated as an emulsifiable concentrate containing triglyceride ethoxylate 10 POE, siloxylated polyether and surfactant mixture at nominal concentrations of 56.0%, 24.0% and 6.9% respectively. This adjuvant has a specific gravity ranging from 0.981 to 0.985 and pH ranging from 6.0 to 7.0. The chemistry requirements for Dynamax Adjuvant are complete.

Health Assessments

Dynamax Adjuvant is of low acute oral, dermal and inhalation toxicity. It is minimally irritating to the eye and mildly irritating to the skin of the rabbit. It is not a dermal sensitizer.

No new residue data were submitted to support the registration of Dynamax Adjuvant containing triglyceride ethoxylate 10 POE, siloxylated polyether and surfactant blend. The new adjuvant is a combination of previously registered surfactant blends and has a similar use pattern. When it is used together with end-use products containing various active ingredients on various crops, or on rangeland and pasture, no change in the magnitude of residues is expected in the treated crops. Therefore, dietary exposure to these active ingredients is not expected to increase, and will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.

An occupational exposure assessment was not required.

Environmental Assessment

Dynamax Adjuvant contains compounds that are currently present in other registered products. Thus, no additional environmental concerns will result from the use of the new formulation. Limited environmental risk is expected. Environmental concerns have been mitigated through adequate statements on the product label.

Value Assessment

Value information submitted for review included data from nine herbicide field trials conducted in Ontario between 2010 and 2013, five of which were conducted in soybeans and four of which were conducted in industrial sites, and one fungicide trial conducted on potatoes in PEI in 2013.

Performance of Dynamax Adjuvant applied with a number of herbicides or herbicide tank mixtures, including Classic Herbicide + Assure II Herbicide, Clearview Herbicide, Eragon Herbicide + glyphosate herbicide, Navius Herbicide, Rejuvra XL Herbicide, and Truvist Herbicide, was directly compared to these herbicides or herbicide tank mixtures applied with their respectively labelled surfactants for control of barnyard grass, broadleaf plantain, goldenrod, common ragweed, giant ragweed, green foxtail, pigweed, lamb's-quarters, quackgrass, spotted knapweed, sweet clover, white clover, and wild carrot. The performance of Torrent Fungicide for control of late blight was assessed for potatoes when tank-mixed with several different adjuvants, including Dynamax Adjuvant and Sylgard 309. Phytotoxicity of the same treatments was also assessed in four soybean trials and one potato trial.

Efficacy of Clearview Herbicide, Navius Herbicide, Truvist Herbicide, and Rejuvra Herbicide applied with Dynamax Adjuvant at 0.125-0.25% v/v was comparable to those herbicides applied with Agral 90 or Hasten NT at 0.25% v/v for control of broadleaf plantain, goldenrod, common ragweed, lamb's-quarters, spotted knapweed, sweet clover, white clover, and wild carrot. Therefore, Dynamax Adjuvant at 0.125-0.25% v/v was supported for registration as an alternative adjuvant for use with these herbicides.

Efficacy of Classic Herbicide + Assure II Herbicide applied with Dynamax Adjuvant at 0.15 or 0.175% v/v was comparable to that of this tank mixture applied with Sure-Mix at 0.5% v/v for control of barnyard grass, common ragweed, green foxtail, lamb's-quarters, pigweed, and quackgrass. Therefore, Dynamax Adjuvant at 0.15-0.175% v/v was supported for registration as an alternative adjuvant for use with this tank mixture.

Efficacy of Eragon Herbicide + glyphosate herbicide with Dynamax Adjuvant at 0.25% v/v was comparable to that of this tank mixture applied with Merge at 1.0% v/v for giant ragweed control. Therefore, Dynamax Adjuvant at 0.25% v/v is supported for registration as an alternative adjuvant for use with this tank mixture.

The tank mixture of Elim Herbicide + Dual Magnum/Dual II Magnum Herbicide + Banvel/Banvel II Herbicide is presently registered on the Elim Herbicide label and it may be applied with a NIS at 0.2% v/v (for use on field corn in the Red River Valley region of Manitoba for control of annual grasses and broadleaf weeds). Since Dynamax Adjuvant as an alternative adjuvant was acceptable for use with Clearview Herbicide, Navius Herbicide, Truvist Herbicide, and Rejuvra Herbicide, it was also acceptable for use with this tank mixture.

Performance of Torrent Fungicide on potato late blight control was comparable among all Torrent Fungicide + adjuvant treatments, including Dynamax Adjuvant and Sylgard 309. It was concluded that Dynamax Adjuvant has acceptable value when tank-mixed with Torrent Fungicide. Therefore, Dynamax Adjuvant at 0.25% v/v is supported for registration as an alternative adjuvant for use with Torrent Fungicide.

Crop injury was not observed in three soybean trials and one potato trial and moderate injury was observed in the remaining soybean trial. However, the observed crop injury with herbicide treatments applied with Dynamax Adjuvant was comparable to that with the same herbicide treatments applied with their respectively labelled adjuvants. Yield with herbicide treatments applied with Dynamax Adjuvant was comparable to that with the same herbicide treatments applied with their respectively labelled adjuvants in all these trials.

Based on the weight of evidence, the registration of Dynamax Adjuvant for use with the listed herbicides, herbicide tank mixtures, or Torrent Fungicide was supported from a value standpoint.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information sufficient to support the registration of the new end-use product Dynamax Adjuvant.

References

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