

Evaluation Report for Category B, Subcategory 5.0 Application

Application Number: 2022-5977
Application: New Maximum Residue Limits for Previously Assessed Technical Grade Active Ingredient
Product: Diquat Technical
Registration Number: 20218
Active ingredient (a.i.): Diquat
PMRA Document Number: 3540371

Purpose of Application

The purpose of this application was to amend the maximum residue limit (MRL) for residues of diquat on soybeans.

Chemistry, Environmental and Value Assessments

Chemistry, environmental and value assessments were not required for this application.

Health Assessments

Residue data from field trials conducted in the United States were submitted to support the revision of the diquat MRL on soybeans. Diquat was applied to soybeans at a rate equivalent to the maximum registered application rate, with samples harvested according to the proposed label directions. In addition, a processing study in treated soybeans was reviewed to determine the potential for concentration of residues of diquat into processed commodities.

Maximum Residue Limit

The recommendation for the proposed maximum residue limit (MRL) for diquat was based upon the submitted field trial data, and the guidance provided in the [OECD MRL Calculator](#). An MRL to cover residues of diquat in/on dry soybeans and its processed commodities is proposed as shown in Table 1. Residues in processed commodities not listed in Table 1 are covered under the proposed MRL for the raw agricultural commodity (RAC).

TABLE 1. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limit (MRL)							
Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor	Currently Established MRL (ppm)	Proposed MRL (ppm)
			LAFT	HAFT			

TABLE 1. Summary of Field Trial and Processing Data Used to Support Maximum Residue Limit (MRL)

Commodity	Application	PHI	Residues (ppm)		Experimental	Currently	Proposed MRL
Dry soybeans	Foliar / 518-566	2-7	<0.010	0.074	Refined oil: 0.16x Flour: 0.33x Soy milk: 0.15x	0.05	0.09

ppm = parts per million; LAFT = Lowest Average Field Trial; HAFT = Highest Average Field Trial

Following the review of all available data, the MRL proposed in Table 1 is recommended to cover residues of diquat. Dietary risks from exposure to residues of diquat in dry soybeans at the proposed MRL were shown to be acceptable for the general population and all subpopulations, including infants, children, adults and seniors. Thus, the foods that contain residues as listed in Table 1 are considered safe to eat.

Toxicology and occupational exposure assessments were not required for this application.

Conclusion

The Pest Management Regulatory Agency has completed an assessment of the information provided, and has found the information acceptable to support the amendment to the MRL for soybeans.

References

PMRA Document Number	Reference
3405700	2022, Residue Data Summary to Support MRL Adjustment in Soybean, DACO 7.1
3405701	2022, Diquat SL (A12872A) – Magnitude of the Residue in or on Soybeans and Soybean Processed Commodities USA 2020 Final Report, DACO 7.2.1, 7.4.1, 7.4.2

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