

Table 3.3.1 Level 1 Estimated environmental concentrations (EECs) of quizalofop-p-ethyl in drinking water

Crop and annual application rate	Active Ingredient (RD in water)	Groundwater (µg a.i./L)		Surface Water (µg a.i./L)	
		Acute ¹	Chronic ²	Reservoir	
				Acute ³	Chronic ⁴
Canola, pumpkin, soybeans and peas 72 g a.i./ha; 1 application/season	quizalofop-p-ethyl + quizalofop-p + hydroxy-quizalofop-p + dihydroxy-quinoxaline + hydroxy-quinoxaline	5.6	5.6	2.7	0.80

¹ 90th percentile of daily average concentrations.

² 90th percentile of 365-day moving average concentrations.

³ 90th percentile of peak concentrations from each year.

⁴ 90th percentile of yearly average concentrations.

3.3.2 Drinking water exposure and risk assessment

Drinking water exposure estimates were combined with food exposure estimates, with EEC values incorporated directly in the chronic dietary (food and drinking water) assessments. Please refer to Section 3.2.4 for details and conclusions.

3.4 Occupational and non-occupational exposure and risk assessment

There is potential for occupational exposure to quizalofop-p-ethyl during mixing, loading, and/or applying the pesticide, and when entering a treated site to conduct postapplication activities, such as irrigation or scouting. There is a potential for non-occupational (bystander) exposure to quizalofop-p-ethyl residues from spray drift during commercial applications.

3.4.1 Toxicological reference values

Toxicology reference values used in the assessment are summarized in Appendix III.

3.4.1.1 Short-term dermal

For short-term occupational exposure via the dermal route, the offspring NOAEL of 2.6 mg/kg bw/day from the 2-generation dietary reproductive toxicity study in rats was selected for risk assessment, based on liver effects, and organ weight changes in offspring observed in the absence of maternal toxicity. The existing short-term dermal toxicity study in the rabbit was considered supplemental because it lacked information on such parameters as clinical signs, body weight, food consumption, hematology, clinical chemistry and organ weights. Further, the dermal study did not assess the endpoint of concern, namely body weight and liver effects in offspring following prenatal or post-natal exposure, thus necessitating the use of an oral toxicity