

calculated DWLOCs, EPA concludes with reasonable certainty that exposures to the pesticide in drinking water (when considered along with other sources of exposure for which EPA has reliable data) would not result in unacceptable levels of aggregate human health risk at this time. Because EPA considers the aggregate risk resulting from multiple exposure pathways associated with a pesticide's uses, levels of comparison in drinking water may vary as those uses

change. If new uses are added in the future, EPA will reassess the potential impacts of residues of the pesticide in drinking water as a part of the aggregate risk assessment process.

1. *Acute risk.* Using the exposure assumptions discussed in this unit for acute exposure, the acute dietary exposure from food to bifenthrin will occupy 32% of the aPAD for the U.S. population, 19% of the aPAD for females 13 to 50 years old, 52% of the

aPAD for infants less than 1 year old and 38% of the aPAD for children 1 to 6 years old. In addition, there is potential for acute dietary exposure to bifenthrin in drinking water. After calculating DWLOCs and comparing them to the EECs for surface and ground water, EPA does not expect the aggregate exposure to exceed 100% of the aPAD, as shown in Table 3 of this unit:

TABLE 3.—AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO BIFENTHRIN

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
U.S. population	0.033	32	0.1	0.006	780
All Infants (<1 year old)	0.033	52	0.1	0.006	160
Children (1–6 years old)	0.033	38	0.1	0.006	200
Females (13–50 years old)	0.033	19	0.1	0.006	800

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to bifenthrin from food will utilize 12% of the cPAD for the U.S. population, 13% of the cPAD for infants less than 1 year old and 24% of

the cPAD for children 1 to 6 years old. Based on the use pattern, chronic residential exposure to residues of bifenthrin is not expected. In addition, there is potential for chronic dietary exposure to bifenthrin in drinking water. After calculating DWLOCs and

comparing them to the EECs for surface and ground water, EPA does not expect the aggregate exposure to exceed 100% of the cPAD, as shown in Table 4 of this unit:

TABLE 4.—AGGREGATE RISK ASSESSMENT FOR CHRONIC EXPOSURE TO BIFENTHRIN

Population Subgroup	cPAD mg/kg/day	% cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. Population	0.004	12	0.1	0.006	120
All Infants (<1 year old)	0.004	13	0.1	0.006	35
Children (1–6 years old)	0.004	24	0.1	0.006	30

3. *Short-term risk.* Short-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level).

Bifenthrin is currently registered for use that could result in short-term residential exposure and the Agency has determined that it is appropriate to aggregate chronic food and water and short-term exposures for bifenthrin.

Using the exposure assumptions described in this unit for short-term exposures, EPA has concluded that food

and residential exposures aggregated result in aggregate MOEs of 544 to 1,070 for adult male and female homeowners applying bifenthrin to turf, treating structural wood or making crack and crevice applications indoors. EPA has further concluded that food and residential exposures aggregated result in aggregate MOEs of 354 for children (toddlers) with post-application exposure outdoors and 694 for children (toddlers) with post-application exposure following indoor crack and crevice treatments. These aggregate

MOEs do not exceed the Agency's level of concern for aggregate exposure to food and residential uses. In addition, short-term DWLOCs were calculated and compared to the EECs for chronic exposure of bifenthrin in ground and surface water. After calculating DWLOCs and comparing them to the EECs for surface and ground water, EPA does not expect short-term aggregate exposure to exceed the Agency's level of concern, as shown in Table 5 of this unit: