

ground water, EPA does not expect the aggregate exposure to exceed 100% of

the aPAD, as shown in the following Table 2:

TABLE 2.—AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO LAMBDA-CYHALOTHRIN

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
U.S. Population (total)	0.005	40.86	0.62	0.012	103
All Infants (1 year)	0.005	71.22	0.62	0.012	14
Children 1–6 years	0.005	82.36	0.62	0.012	9
Children 7–12 years	0.005	46.09	0.62	0.012	27
Females 13–50	0.005	23.83	0.62	0.012	114
Males 13–19	0.005	27.61	0.62	0.012	127
Males 20+ years	0.005	21.69	0.62	0.012	137
Seniors 55+	0.005	21.85	0.62	0.012	137

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to lambda-cyhalothrin from food will utilize 8.2% of the cPAD for the U.S. population, 11.7% of the cPAD for all infants < 1 year old and 21.8% of the cPAD for children 1-6

years old. Based on the use pattern, chronic residential exposure to residues of lambda-cyhalothrin is not expected. In addition, despite the potential for chronic dietary exposure to lambda-cyhalothrin in drinking water, after calculating DWLOCs and comparing them to conservative model estimated

environmental concentrations of lambda-cyhalothrin in surface water and ground water, EPA does not expect the aggregate exposure to exceed 100% of the cPAD, as shown in the following Table 3:

TABLE 3.—AGGREGATE RISK ASSESSMENT FOR CHRONIC (NON-CANCER) EXPOSURE TO LAMBDA-CYHALOTHRIN

Population Subgroup	cPAD mg/kg/day	% cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. Population (total)	0.001	8.2	0.098	0.012	32
All Infants (< 1 year)	0.001	11.7	0.098	0.012	9
Children 1–6 years	0.001	21.8	0.098	0.012	8
Children 7–12 years	0.001	12.9	0.098	0.012	9
Females 13–50	0.001	5.7	0.098	0.012	28
Males 13–19	0.001	7.9	0.098	0.012	32
Males 20+ years	0.001	6.0	0.098	0.012	33
Seniors 55+	0.001	5.8	0.098	0.012	33

3. *Short- and intermediate-term risk.* Aggregate risk for short- and intermediate-term durations of exposure includes food, drinking water, and residential exposure pathways. The residential exposure pathway includes dermal, inhalation, and incidental oral (hand-to-mouth-type inadvertent exposure) routes of exposure. This aggregate risk assessment included lawn post-application exposure, considered the scenario with the highest potential for exposure and is a day 0 screening level assessment.

Lambda-cyhalothrin is currently registered for use(s) that could result in short- and intermediate-term residential exposure and the Agency has determined that it is appropriate to aggregate chronic food and water and short-term exposures for lambda-cyhalothrin.

Using the exposure assumptions described in this unit for short- and intermediate-term exposures, EPA has concluded that food and residential exposures aggregated result in aggregate MOEs of 879 for adults, 239 for children

1–6, and 302 for infants <1 year old. 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 lambda-cyhalothrin in ground water 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 the following Table 4: