

underestimate the potential risks for infant, and children. Finally, there are no registered or proposed residential uses for etoxazole.

#### *E. Aggregate Risks and Determination of Safety*

To estimate total aggregate exposure to a pesticide from food, drinking water, and residential uses, the Agency calculates DWLOCs which are used as a point of comparison against the model estimates of a pesticide's concentration in water (EECs). DWLOC values are not regulatory standards for drinking water. DWLOCs are theoretical upper limits on a pesticide's concentration in drinking water in light of total aggregate exposure to a pesticide in food and residential uses. In calculating a DWLOC, the Agency determines how much of the acceptable exposure (i.e., the PAD) is available for exposure through drinking water (e.g., allowable chronic water exposure (mg/kg/day) = cPAD - (average food + residential exposure)). This allowable exposure through drinking water is used to calculate a DWLOC.

A DWLOC will vary depending on the toxic endpoint, drinking water consumption, and body weights. Default body weights and consumption values

as used by the USEPA Office of Water are used to calculate DWLOCs: 2 liter (L)/70 kg (adult male), 2L/60 kg (adult female), and 1L/10 kg (child). Default body weights and drinking water consumption values vary on an individual basis. This variation will be taken into account in more refined screening-level and quantitative drinking water exposure assessments. Different populations will have different DWLOCs. Generally, a DWLOC is calculated for each type of risk assessment used: Acute, short-term, intermediate-term, chronic, and cancer.

When EECs for surface water and ground water are less than the 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.* As stated above, an endpoint of concern attributable to a single oral dose was not identified in the hazard data base for either the general U.S. population (including infants and children) or the females 13–50 years old population subgroup. Therefore, no acute risk is expected.

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to etoxazole from food will utilize 1% of the cPAD for the U.S. population, 3% of the cPAD for all infants less than 1-year old and 5% of the cPAD for children 1 to 2 years old. There are no residential uses for etoxazole that result in chronic residential exposure to etoxazole. In addition, there is potential for chronic dietary exposure to etoxazole in drinking water. After calculating DWLOCs and comparing them to the EECs for surface water and ground water, EPA does not expect the aggregate exposure to exceed 100% of the cPAD, as shown in Table 3 of this unit:

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

Population Subgroup	cPAD mg/kg/day	%cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. population	0.046	1	1.77	0.242	1,600
All infants (< 1 year old)	0.046	3	1.77	0.242	440
Children (1–2 years old)	0.046	5	1.77	0.242	440
Children (3–5 years old)	0.046	3	1.77	0.242	440
Children (6–12 years old)	0.046	1	1.77	0.242	450
Youth (13–19 years old)	0.046	<1	1.77	0.242	1,400
Adults (20–49 years old)	0.046	<1	1.77	0.242	1,600
Females (13–49 years old)	0.046	<1	1.77	0.242	1,400
Adults (50+ years old)	0.046	<1	1.77	0.242	1,600

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). Etoxazole is not registered for use on

any sites that would result in residential exposure. Therefore, the aggregate risk is the sum of the risk from food and water, which do not exceed the Agency's LOC.

4. *Intermediate-term risk.* Intermediate-term aggregate exposure takes into account residential exposure plus chronic exposure to food and water (considered to be a background exposure level). Etoxazole is not