

available for exposure through drinking water e.g., allowable water exposure (mg/kg/day) = PAD - (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 EPA's Office of Water are used to calculate DWLOCs: 2 liter (L)/70 kg (adult male), 2L/60 kg (adult female and youth), 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.* Using the exposure assumptions discussed in this unit for acute exposure, the acute dietary exposure from food to buprofezin will occupy 1% of the aPAD for the females 13–49 years old. No effect that could be attributed to a single exposure was observed, (no endpoint was chosen) for the general U.S. population (including infants and children). In addition, there is potential for acute dietary exposure to buprofezin 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 aPAD, as shown in the following Table 2:

TABLE 2.—AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO BUPROFEZIN

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
Females (13–49 years old)	2.0	1	102	0.08	59,000

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to buprofezin from food will utilize 32% of the cPAD for the U.S. population, 18% of the cPAD for infants <1 year old, and 63% of the

cPAD for children 1–2 years old. There are no residential uses for buprofezin that result in chronic residential exposure to buprofezin. In addition, there is potential for chronic dietary exposure to buprofezin 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 the following Table 3:

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

Population Subgroup	cPAD mg/kg/day	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
U.S. population	0.01	32	34	0.08	240
All infants (<1 year old)	0.01	18	34	0.08	83
Children (1–2 years old)	0.01	63	34	0.08	37
Females (13–years old)	0.01	30	34	0.08	210

3. *Aggregate cancer risk for U.S. population.* In accordance with the EPA Guidelines for Carcinogen Risk Assessment, the Carcinogen Assessment Review Commission classified buprofezin as having “suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential” based on liver tumors in female mice. The Committee further recommended no quantification of cancer risk.

4. *Determination of safety.* Based on these risk assessments, EPA concludes that there is a reasonable certainty that no harm will result to the general

population, and to infants and children from aggregate exposure to buprofezin residues.

#### IV. Other Considerations

##### A. Analytical Enforcement Methodology

Adequate enforcement methodology gas chromatography using nitrogen phosphorus detection is available to enforce the tolerance expression. The method may be requested from: Chief, Analytical Chemistry Branch, Environmental Science Center, 701 Mapes Rd., Ft. Meade, MD 20755–5350;

telephone number: (410) 305–2905; e-mail address: residuemethods@epa.gov.

##### B. International Residue Limits

Canada, Codex, and Mexico do not have maximum residue limits for residues of buprofezin in/on the proposed crops. Therefore, harmonization is not an issue.

#### V. Conclusion

Therefore, the tolerances are established for residues of buprofezin, [(2-[(1,1-dimethylethyl)imino]tetrahydro-3(1-methylethyl)-5-phenyl-4H-1,3,5-