

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 groundwater 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 cyprodinil will occupy 2% of the aPAD for the females 13–49 years old. In addition, there is potential for acute dietary exposure to

cyprodinil in drinking water. For the general U.S. population, no toxic effects of concern that could be attributed to a single exposure were observed in the oral-toxicity studies, including the developmental toxicity studies in rats and rabbits. Therefore, an acute RfD was not established for this population subgroup and an acute dietary exposure assessment was not conducted for this population subgroup. 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 the following Table 4:

TABLE 4.—AGGREGATE RISK ASSESSMENT FOR ACUTE EXPOSURE TO CYPRODINIL

Population Subgroup	aPAD (mg/kg)	% aPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Acute DWLOC (ppb)
Females 13–49 years old	1.5	2	32.9	0.16	44,000

2. *Chronic risk.* Using the exposure assumptions described in this unit for chronic exposure, EPA has concluded that exposure to cyprodinil from food will utilize 25% of the cPAD for the U.S. population, 65% of the cPAD for (the most highly exposed population

subgroup) children 1–2 years old, 32% of the cPAD for all infants <1 year old, and 21% of the cPAD for females 13–49 years old. Based on the use pattern, chronic residential exposure to residues of cyprodinil is not expected. In addition, there is potential for chronic

dietary exposure to cyprodinil 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 the following Table 5:

TABLE 5.—AGGREGATE RISK ASSESSMENT FOR CHRONIC (NON-CANCER) EXPOSURE TO CYPRODINIL

Population Subgroup	cPAD mg/kg/day	%cPAD (Food)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
U.S. Population	0.03	25	8.1	0.16	790
Children (1–2 years old)	0.03	65	8.1	0.16	100
All Infants (<1 year old)	0.03	32	8.1	0.16	200
Females (13–49 years old)	0.03	21	8.1	0.16	710

3. *Aggregate cancer risk for U.S. population.* Based on the lack of evidence of carcinogenicity in mice and rats at doses that were judged to be adequate to assess the carcinogenic potential, cyprodinil was classified as “not likely to be carcinogenic to humans.” Therefore, cyprodinil is not expected to pose a cancer risk to humans.

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 cyprodinil residues.

#### IV. Other Considerations

##### A. Analytical Enforcement Methodology

The results of Multiresidue Method testing of cyprodinil and its metabolite CGA–232449 have been forwarded to the Food and Drug Administration (FDA). Cyprodinil was tested according to the FDA Multiresidue protocols (Protocols C, D, and E), and acceptable recoveries were obtained for cyprodinil fortified in apples at 0.50 ppm using Protocol D. The petitioner is proposing the Method AG-631A as a tolerance enforcement method for residues of cyprodinil in/on the subject crops. The method includes confirmatory procedures using gas chromatography/nitrogen/phosphorus detector (GC/NPD). The method has successfully undergone radiovalidation using <sup>14</sup>C-

labeled tomato samples and independent laboratory validation. In addition, the method has been the subject of acceptable Agency petition method validations on stone fruits and almond nutmeat and hulls. 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](mailto:residuemethods@epa.gov).

##### B. International Residue Limits

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