

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).

Pyriproxyfen 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 pyriproxyfen.

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 26,000 for the U.S. population, 1,800 for all infants (<1 year old), and 1,600 for children (1–2 years 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 pyriproxyfen 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:

TABLE 5.—AGGREGATE RISK ASSESSMENT FOR SHORT-TERM EXPOSURE TO PYRIPROXYFEN

Population Subgroup	Aggregate MOE (Food + Residential)	Target MOE	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Short-Term DWLOC (ppb)
U.S. population	26,000	100	0.40	0.006	35,000
All infants (<1 year old)	1,800	100	0.40	0.006	9,400
Children (1–2 years old)	1,600	100	0.40	0.006	9,400
Females (13–49 years old)	37,000	00	0.40	0.006	30,000

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).

Pyriproxyfen is currently registered for use(s) that could result in intermediate-term residential exposure and the Agency has determined that it is appropriate to aggregate chronic food

and water and intermediate-term exposures for pyriproxyfen.

Using the exposure assumptions described in this unit for intermediate-term exposures, EPA has concluded that food and residential exposures aggregated result in aggregate MOEs of 9,200 for the U.S. population, 650 for all infants (<1 year old), and 580 for children (1–2 years old). These aggregate MOEs do not exceed the Agency's level of concern for aggregate

exposure to food and residential uses. In addition, intermediate-term DWLOCs were calculated and compared to the EECs for chronic exposure of pyriproxyfen in ground and surface water. After calculating DWLOCs and comparing them to the EECs for surface and ground water, EPA does not expect intermediate-term aggregate exposure to exceed the Agency's level of concern, as shown in Table 6 of this unit:

TABLE 6.—AGGREGATE RISK ASSESSMENT FOR INTERMEDIATE-TERM EXPOSURE TO PYRIPROXYFEN

Population Subgroup	Aggregate MOE (Food + Residential)	Target MOE	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Inter- mediate- Term DWLOC (ppb)
U.S. population	9,200	100	0.40	0.006	12,000
All infants (<1 year old)	650	100	0.40	0.006	3,000
Children (1–2 years old)	580	100	0.40	0.006	3,000
Females (13–49 years old)	13,000	100	0.40	0.006	10,000

5. *Aggregate cancer risk for U.S. population.* There was no evidence of carcinogenicity in a 78-week mouse feeding study and a 2-year rat feeding study. Pyriproxyfen was classified as a "Group E" chemical (no evidence of carcinogenicity to humans) by the Agency based on the absence of evidence of carcinogenicity in male and female rats as well as in male and female mice.

6. *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 pyriproxyfen residues.

IV. Other Considerations

A. Analytical Enforcement Methodology

In conjunction with the residue studies on cabbage, cauliflower, mustard greens, cantaloupe, cucumber, summer squash, olive, okra, and sugar apple, the petitioner submitted adequate concurrent recovery data for a gas chromatography/nitrogen phosphorous

detector (GC/NPD) method (RM–33P–1–3a) used to determine residues of pyriproxyfen in/on these crops. The method has undergone an adequate radiovalidation, independent laboratory validation (ILV) trial, petition method validation (PMV) trial, and has been forwarded to the Food and Drug Administration (FDA) for inclusion in Pesticide Analytical Method (PAM) Vol. II (DP Barcode D257337, W. Donovan, 7/1/99). HED concludes that the GC/NPD method RM–33P–1–3a is adequate for enforcement of the recommended