

TABLE 4.—AGGREGATE RISK ASSESSMENT FOR CHRONIC (NON-CANCER) EXPOSURE TO HYDRAMETHYLNON—Continued

Population Subgroup	cPAD mg/kg/day	Chronic Food Exposure (mg/kg/day)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Chronic DWLOC (ppb)
Children (6–12 years old)	0.017	0.000008	1.45	0.035	170
Youth (13–19 years old)	0.017	0.000002	1.45	0.035	170
Adults (20–49 years old)	0.017	0.000003	1.45	0.035	600
Females (13–49 years old)	0.017	0.000004	1.45	0.035	510
Adults (50+ years old)	0.017	0.000002	1.45	0.035	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). Hydramethylnon 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 hydramethylnon.

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 exposures for both adults (MOE = 8,000; handler and post-application) and children (MOE = 680; post-application). Therefore, the turf-treatment exposure estimates were aggregated with the chronic dietary (food) to provide a worst-case estimate of short-term aggregate risk for the U.S. population and children 1–2 years old (the child population subgroup with the highest estimated average (chronic) dietary food

exposure). 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 hydramethylnon 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 the following Table 5:

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

Population Subgroup	Aggregate MOE (Food + Residential)	Aggregate Level of Concern (LOC)	Surface Water EEC (ppb)	Ground Water EEC (ppb)	Short-Term DWLOC (ppb)
US Population	7,700	100	76.09	0.035	580
Children 1–2 years old	3,300	100	76.09	0.035	165

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). Though residential exposure could occur with the use of hydramethylnon, an intermediate-term aggregate risk assessment was not performed because it is based on the same toxic endpoint and dose as the short-term, and the higher exposure used in the short-term assessment represents a worse case.

5. *Aggregate cancer risk for U.S. population.* A separate cancer aggregate risk assessment was not performed because the Reference Dose approach was recommended for quantification of human risk. Cancer risks are adequately addressed by the chronic aggregate and assessment which used the chronic reference dose (cRfD).

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 hydramethylnon residues.

#### IV. Other Considerations

##### A. Analytical Enforcement Methodology

The method presented by BASF Corporation and designated M 2458, is the predecessor to method M 2458.01 for which BASF Corporation has submitted as an independent method validation. The updated method corrects some typographical errors and clarifies some of the fractionation steps. Adequate enforcement methodology (example—gas chromatography) 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](mailto:residuemethods@epa.gov).

##### B. International Residue Limits

No maximum residue limits for hydramethylnon in/on pineapple have been established or proposed by Codex, Canada, or Mexico for any agricultural commodity; therefore, no compatibility concerns exist with respect to U.S. tolerances.

##### C. Conditions

The following studies are required to further characterize the environmental effects of hydramethylnon: Estuarine/marine fish LC<sub>50</sub> (72–1), Estuarine/marine invertebrate EC<sub>50</sub> (72–2), and Sediment Toxicity Testing (Harmonized guidelines 850.1735 and 850.1740). In addition, the following studies are required for any future expansion of hydramethylnon uses: Aquatic Photodegradation (161–2), Aerobic Aquatic Metabolism (162–4), and Terrestrial Field Dissipation (164–1).