

cranberries, tree nuts, pistachio, papaya and similar fruit, strawberries, hops, green house tomatoes, and secondary residues in animal products meat, meat byproducts, fat - from cattle, goat, hog, horse, sheep).

i. *Food.* Specific inputs and default values were considered in the pyridaben dietary assessment. Anticipated residue values from the raw agricultural commodities and the residue tolerances utilized in the assessment were multiplied by a factor of 2.3 to include all organosoluble residues of pyridaben. Tolerance values were assumed for pistachios, tree nuts, and secondary residues in meat, meat byproducts, fat, and milk. The 2.3 multiplication factor was not used for these animal commodities since the residues of concern (pyridaben and its metabolites), as specified in 40 CFR 180.494 are well understood in animals. Default processing factors were used for all commodities except for those specified in Table 1 below. In addition, percent crop treated (% CT) values of 23, 5.8, and 11.4% were utilized for pome fruit, grapes, and citrus, respectively. These percent crop treated values were based on the 2000 to 2002 pyridaben peak sales year and peak acreage year. All other crops were considered to have 100% crop treated.

TABLE 1.—PROCESS FACTORS USED IN THE PYRIDABEN DIETARY ASSESSMENT

Commodity	Process	Process Factor
Citrus	washed juice	0.48 0.096
Apples/Pears	washed juice	0.68 0.09
Grapes	juice dried	0.04 0.94

\* Default processing factors were used for all other commodities.

ii. *Drinking water.* There are no established maximum contaminant levels or health advisory levels for residues of pyridaben (BAS 300 I) or its metabolites in drinking water. The PRZM/EXAMS and SciGrow models were used to estimate the maximum concentrations in surface and ground water, respectively. Pyridaben is immobile and thus unlikely to leach to groundwater. Results of environmental modeling indicate an estimated 0.215 ppm (acute) and 0.020 ppm (chronic) of pyridaben in surface water.

2. *Non-dietary exposure.* Pyridaben (BAS 300 I) is a plant protection product used to control insects. This product is not considered for residential use and therefore the aggregate exposure is a result of pyridaben residues in food and water.

#### D. Cumulative Effects

The cumulative exposure to substances with common mechanism of toxicity must be considered. Currently at this time there is not available data

to determine whether pyridaben has a common mechanism of toxicity with other substances or how to include this pesticide in a cumulative risk assessment. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, pyridaben does not appear to form a toxic metabolite produced by other substances. As a result, for the purposes of this tolerance action, it is assumed that pyridaben does not have a common mechanism of toxicity with other substances.

#### E. Safety Determination

1. *Acute.* Exposure estimates for the pyridaben acute dietary assessment were well under 100% of the aPAD at the 99.9th percentile. The overall general population and the most sensitive subpopulation (females 13–49 years) utilized <11% and 14.5% of the acute population adjusted dose (aPAD), respectively. Results from a Tier I dietary assessment of pyridaben residues in cranberries indicates the percent aPAD for children 1–6 years old and females 13–49 years old were <3%. Therefore considering all current and pending commodities, including cranberries, the percent chronic reference dose (%cRfD) and percent chronic population dose (%cPAD) will be below 20% for all population subgroups. Further refinements including additional percent crop treated, processing factors, cooking factors, actual residue values for the remaining commodities (where default values and tolerance levels were used for this assessment) would further reduce the exposure estimates.

TABLE 2. ACUTE DIETARY EXPOSURE ASSESSMENT FOR FOR PYRIDABEN (BAS 300 I)

Population Subgroups	Exposure Estimate (mg/kg b. w. /day)	%aRfD	%aPAD
Birth to 1 year	0.04488	8.98	8.98
1–2 years	0.0509	10.18	10.18
3–5 years	0.04339	8.68	8.68
1–6 years	0.03382	6.76	6.76
6–12 years	0.0300	6.00	6.00
13–19 years	0.01327	2.65	2.65
Females 13–49 years	0.01885	14.50	14.50
Males 20–49 years	0.01101	2.20	2.20
Adults 50+ years	0.01591	3.18	3.18