

TABLE 1.—SUMMARY OF TOXICOLOGICAL DOSE AND ENDPOINTS FOR DIMETHOMORPH FOR USE IN HUMAN RISK ASSESSMENT—Continued

Exposure Scenario	Dose Used in Risk Assessment, UF	Special FQPA SF* and Endpoint for Risk Assessment	Study and Toxicological Effects
Cancer (oral, dermal, inhalation)	Not applicable	Not applicable	This chemical is classified as “not likely” to be a human carcinogen

### C. Exposure Assessment

1. *Dietary exposure from food and feed uses.* Tolerances have been established (40 CFR 180.493) for the residues of dimethomorph, in or on [grape; grape, raisin; hop, dried cones; lettuce, head; lettuce, leaf; potato, wet peel; tomato; tomato, paste; vegetable, bulb, group 3; and vegetable, cucurbit, group 9. Time-limited tolerances are also established for residues of dimethomorph in connection with use of the pesticide under emergency exemptions pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act for cantaloupe, cucumber, squash, and watermelon at 1.0 ppm set to expire on December 31, 2003. Additionally, time-limited tolerances are established for inadvertent or indirect residues of dimethomorph in or on the following raw agricultural commodities when present therein as a result of the application of dimethomorph to growing crops: grain, cereal group, fodder; grain, cereal group, forage; grain, cereal group, grain; grain, cereal group, hay; and grain, cereal group, straw at 0.15 ppm, set to expire on May 12, 2004. Risk assessments were conducted by EPA to assess dietary exposures from dimethomorph in food as follows:

i. *Acute exposure.* A quantitative acute dietary exposure and risk assessment was not conducted for dimethomorph since an acute oral endpoint attributed to a single-dose exposure could not be identified in any of the toxicology studies, including developmental and maternal toxicity in the developmental toxicity studies. No acute risk is expected from exposure to dimethomorph.

ii. *Chronic exposure.* In conducting this acute dietary risk assessment EPA used the Dietary Exposure Evaluation Model software with the Food Commodity Intake Database (DEEM™/FCID) which incorporates food consumption data as reported by respondents in the United States Department of Agriculture (USDA) 1994–1996 and 1998 nationwide Continuing Surveys of Food Intake by Individuals (CSFII) and accumulated exposure to the chemical for each commodity. The following assumptions were made for the chronic exposure

assessment: The chronic dietary risk assessment for dimethomorph assumed tolerance level residues and 100% crop treated (Tier 1) for all registered and proposed crops.

iii. *Cancer.* EPA has classified dimethomorph as a “not likely” human carcinogen. Therefore, a quantitative cancer dietary exposure and risk assessment was not performed.

2. *Dietary exposure from drinking water.* The Agency lacks sufficient monitoring exposure data to complete a comprehensive dietary exposure analysis and risk assessment for dimethomorph in drinking water. Because the Agency does not have comprehensive monitoring data, drinking water concentration estimates are made by reliance on simulation or modeling taking into account data on the physical characteristics of dimethomorph.

The Agency uses the Generic Estimated Environmental Concentration (GENEEC) or the Pesticide Root Zone Model/Exposure Analysis Modeling System (PRZM/EXAMS) to estimate pesticide concentrations in surface water and Screening Concentrations in Ground Water (SCI-GROW), which predicts pesticide concentrations in groundwater. In general, EPA will use GENEEC (a Tier 1 model) before using PRZM/EXAMS (a Tier 2 model) for a screening-level assessment for surface water. The GENEEC model is a subset of the PRZM/EXAMS model that uses a specific high-end runoff scenario for pesticides. GENEEC incorporates a farm pond scenario, while PRZM/EXAMS incorporate an index reservoir environment in place of the previous pond scenario. The PRZM/EXAMS model includes a percent crop area factor as an adjustment to account for the maximum percent crop coverage within a watershed or drainage basin.

None of these models include consideration of the impact processing (mixing, dilution, or treatment) of raw water for distribution as drinking water would likely have on the removal of pesticides from the source water. The primary use of these models by the Agency at this stage is to provide a coarse screen for sorting out pesticides for which it is highly unlikely that drinking water concentrations would

ever exceed human health levels of concern.

Since the models used are considered to be screening tools in the risk assessment process, the Agency does not use estimated environmental concentrations (EECs) from these models to quantify drinking water exposure and risk as a %RfD or %PAD. Instead drinking water levels of comparison (DWLOCs) are calculated and used as a point of comparison against the model estimates of a pesticide's concentration in water. DWLOCs are theoretical upper limits on a pesticide's concentration in drinking water in light of total aggregate exposure to a pesticide in food, and from residential uses. Since DWLOCs address total aggregate exposure to dimethomorph they are further discussed in the aggregate risk sections in Unit E.

Based on the GENEEC and SCI-GROW models the EECs of dimethomorph for acute exposures are estimated to be 79.8 parts per billion (ppb) for surface water and 0.30 ppb for ground water. The EECs for chronic exposures are estimated to be 28.5 ppb for surface water and 0.30 ppb for ground water.

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