Uses	Notes	Exposure (mg/kg/day)		Exposure Pat-	Margin of Ex-
		Dermal	Inhalation	tern ₁	linesterase In- hibition)
Reentry		2.7 x 10-4	0.18	Short-term	2.8
Kennels Applicator	22	similar to dairy barn	similar to dairy barn	Short-term	> 100
Insect traps	23	negligible	negligible	Short-term	negligible risk
Garbage dumps	24	< greenhouse	< greenhouse	Short-term	> 81
Commercial, institutional and industrial areas Application Reentry	25	0.1 2.7 x 10 ⁻⁴	0.002 0.18	Short-term Short-term	38 2.8
Commercial transportation vehicles Airplanes (disinsection of air- craft) Passenger - post-applica- tion Applicator	26	No data No data	3.7 x 10 ⁻³ 3.7 x 10 ⁻³	Short-term Long-term	135 14
Buses - passenger Truck, shipholds, rail cars Applicator Reentry	27 28	< warehouse negligible	9.2 x 10 ⁻³ < warehouse 2.45 x 10 ⁻²	Short-term Short-term Short-term	55 > warehouse 20

TABLE 1.—SUMMARY OF DICHLORVOS NON-DIETARY RISKS—Continued

ND--Not Detectable

Notes: The following notes define the assumptions used in calculating the margins of exposure.

1. Short-term MOEs based on NOEL of 0.5 mg/kg/day; Intermediate MOEs based on NOEL of 0.1 mg/kg/day; Long-term MOEs based on NOEL of 0.05 mg/kg/day.

2. An average resident weighs 70 kg and has a respiratory volume of 1.7 m³ per hour. No protective clothing is assumed.

3. Resident use of pressurized aerosol product is based on application of an entire one percent 16 ounce can of pressurized aerosol. EPA estimated the risk to residents for different clothing scenarios. The MOE of 47 assumes the resident is wearing only shorts and shoes. Pressurized aerosol products containing dichlorvos do not have any clothing requirements, therefore EPA is assuming that dichlorvos is applied during hot weather when an individual will be wearing the least amount of clothing.

4. Dichlorvos is applied once per week for 44 weeks while wearing no protective clothing.

5. Assumes less than 24 days of exposure per year and less than 2 days/month. The value 0.03 reported in the table includes both dermal and inhalation, since it is based on biomonitoring data (blood samples) and represents the dose to the individual rather than exposure. All other dermal exposure values in the table must be adjusted by the dermal absorption factor of 0.11 to arive at the dose.

6. Same as for fogger.

7. Same as for fogger.

8. Assumes 365 days of exposure per year, 24 hours per day.

9. Assumes 365 days of exposure per year, 24 hours per day.

10. An average worker weighs 70 kg and has a respiratory volume of 1.7 m³ per hour. For mushroom houses, dairy barns, and greenhouses it is difficult to provide a single exposure estimate because of the variety of possible application equipment and differences in how studies were conducted. Therefore, a variety of scenarios are presented for these three uses. At a minimum, the following protective clothing was used in the exposure scenarios: gloves, long-sleeve shirt, long pants.

11. A 0.5% solution of dichlorvos is applied using a hand held low pressure sprayer. It is assumed that dichlorvos is applied by PCO 10 times per day 1 day a week for 44 weeks. An average commercial applicator wears coveralls, chemical resistant gloves, and shoes. A respirator is not worn.

12. An average mushroom house has a volume of 30,000 ft³. Dichlorvos is applied at a rate of 3.0 grams of active ingredient per 1000 ft³ or 30 grams per treatment; 16 days per year, 10 houses per day; 4 minutes per house or 40 minutes per day. Protective clothing was slightly different for each application method. For reentry exposure,

EPA assumed that a worker reenters a ventilated mushroom house 24 hours after treatment and is exposed for 8 hours. Dermal exposure is assumed to be negligible compared to respiratory exposure.

13. A typical greenhouse operation consists of seven greenhouses, each with a volume of 85,000 ft³. All seven greenhouses are treated in one day. There are a maximum of three applications per crop and three crops are produced per year. Dichlorvos is applied at the rate of 1.4 grams of active ingredient per 1000 ft³. The total time spent applying the insecticide is 26.25 minutes per day or 3.94 hours per year. The exposure value assumes that, at a minimum, a worker wears a long sleeve shirt, impervious gloves. In the absence of reentry data for a greenhouse, EPA is assuming that reentry exposure is similar to that of a warehouse.

14. Worker exposure from direct application to animals is based on dairy cattle treatment. EPA does not believe that direct application with a handheld sprayer is used primary method of application. However, since several registered products provide guidance on use with a handheld sprayer, the exposure and risk are estimated here for that application method. A one percent solution of dichlorvos is applied with a handheld sprayer. An average herd of dairy cattle consists of 65 head, each requiring 24 seconds to spray, two times per day during treatment. Fly control is required from May to October with application