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Toxicity of Representative Pesticides

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TOXICITY OF REPRESENTATIVE PESTICIDES

Pesticides Fact Sheet

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The LD_{50} (Lethal Dose 50%) is the amount of a substance that is sufficient to kill 50% of a population of test animals and is measured in milligrams of the substance per kilogram of the test animals body weight.

	LD ₅₀ Oral (Rat)	LD ₅₀ Dermal (Rabbit)
sodium fluoroacetate (1080)	0.1	_
aldicarb (Temik)	0.7	1400 [2.5*]
parathion	2	15
warfarin (D-Con)	3 [800**]	1400
carbofuran (Furadan)	5.3	885 [120 *]
azinphos-methyl (Guthion)	7	220*
strychnine	16	_
cholecalciferol (Vitamin D ₃)	42	_
nicotine	50	50
paraquat (Gramoxone)	57	325 [80*]
rotenone	60	_
diazinon (D·Z·N)	66	180
DDT	87	1931
chlorpyifos (Dursban, Lorsban)	145	2000
caffeine	192	_
pyrethrum	200	_
aspirin	200 [1010**]	_
carbaryl (Sevin)	250	2000 [4000*]
2,4-D acid	370	1400
malathion	370	4100
piperine (black pepper)	514	_

	LD ₅₀ Oral (Rat)	LD ₅₀ Dermal (Rabbit)
atrazine (Aatrex)	672	7500
dicamba (Banvel)	1039 [2000**]	_
garlic oil	1360	_
picloram (Tordon)	2898	<u> </u>
sodium chloride (table salt)	3000	<u> </u>
glyphosate (Roundup)	5480	_
captan	9000 [740**]	_
water	25000 [intravenous]	_

The LD_{50} number in mg/kg multiplied by .003 equals the LD_{50} in ounces for a 187 lb. warm blooded animal (wba). For example, the NIOSH 2,4-D acid LD_{50} number is 370 mg/kg, times .003 equals 1.11 ounces for the LD_{50} of a 187 lb. wba. The NIOSH aldicarb LD_{50} number is 0.7 mg/kg, times .003 equals .0021 ounces for the LD_{50} of a 187 lb. wba. Water would be 75 ounces intravenous.

*rat;	**rabbit	

PRECAUTIONARY STATEMENT

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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