Chlorpyrifos Human Health Standards Established or Proposed by EPA[1]

A comparison of U.S. EPA's chlorpyrifos human health exposure standards *established* under the Reregistration program (published in 2000; finalized in 2006) and *proposed* under the Registration Review program (published in 2011; pending finalization).

	Reregistration 2000 Revised Assessment	**Registration Review 2011 Preliminary Assessment[2]**
Consumer Exposures (e.g., dietary intake)		
FQPA Uncertainty Factor	10X[3]	1X
Acute[4] Point of Departure (PoD)	0.50 mg/kg/day Based on NOAEL[5]	0.36 mg/kg/day Based on BMDL10[6]
Chronic[6] Point of Departure (PoD)	0.03 mg/kg/day Based on NOAEL	0.03 mg/kg/day Based on BMDL10
Worker Exposures (e.g., applicators, reentry workers)		
Incidental Oral	0.50 mg/kg/day Based on NOAEL	Short-term[7]: 0.10 mg/kg/day BMDL10 Intermediate[8]: 0.03 mg/kg/day BMDL10
Dermal	Short-term: 5.0 mg/kg/day NOAEL Intermediate: 0.03 mg/kg/day NOAEL	Short-term or intermediate: 5.0 mg/kg/day NOAEL
Inhalation	Short-term or intermediate: 0.10 mg/kg/day NOAEL	Acute: 0.62 mg/cu meter LOAEL[9] Short-term or intermediate: 0.0057 mg/kg/day NOAEL

[1]Source: Chlorpyrifos: Preliminary Human Health Risk Assessment for Registration Review, Office of Pesticide Programs, U.S. Environmental Protection Agency, June 30, 2011. http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPP-2008-0850-0025

[2]EPA's human health assessment for Registration Review was published in *preliminary* form for public comment during 2011 and is not expected to be finalized until 2014.

[3]Full 10-fold Food Quality Protection Act (FQPA) uncertainty factor retained in 2000 because endpoints were based on testing in adult animals; FQPA UF removed in 2011 based on endpoints from testing sensitive lifestage.

[4]Acute = For exposure duration of 1 day or less.

[5]NOAEL = No Adverse Effects Level for cholinesterase inhibition from key study.

[6]BMDL10 = Benchmark Dose lower confidence level for 10% red-blood cell cholinesterase inhibition determined from one or more studies.

[7]Short-term = For exposure durations of 1 to 30 days

[8]Intermediate = For exposure durations of 1 to 6 months

[9]LOAEL = Lowest Adverse Effects Level for cholinesterase inhibition from key study.