

2,4-dichlorophenoxyacetic acid

77-2,4-dichlorophenoxyacetic acid (CAS# 94-75-7)															
Table 1a. Sub-lethal acute poisoning (single dose): Clinical observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to recovery): h
1	Rivers 1970	1	NR	S, A	NR	(a), ET	7	sr	1006	4552			NR	NR	
		1				ET	15	sr, p, (b)	1031	4665					
		1				ET	33	sr	912	4127					
		1				ET	56	sr	649	2937					
		1				ET	81	sr	364	1647					
		1				ET	106	sr	5.23	23.7					
2	Flanagan 1990	2	29M	A	15	(c)	6	sr, (d)	700	3167			0h: MS	0h: ST	
		2					76	sr	350	1584					72
		3	34M	A	15	(c), p	8	sr, (e)	670	3032			ba: V; 0h: MS, G	0h: ST, FD/UL	72
		3					44	sr	400	1810					
		3					70	sr	40	181					
		4	53F	A	NR	(f)	28.5	sr	640	2895			ba: V, C	0h: ST	
		4					70	sr	300	1357			0h: F, MA	28h: FD/UL 15h	80
		5	21M	A	NR	(g)	5	sr	570	2579			0h: G	0h: ST	
		5											l: C, K	l: FD/UL 2.5 d	80
3	Durakovic 1992	6	24M	S, A	200		10	sr	1225	5542			0h: MS	0h: ST, HD 4h	
		6					14	sr	182	823					NR(192), (h)
		7	50M	U, A	60		3	sr	370	1674			0h: C; 5h: RM	0h: ST	
		7					8	sr	158	715			96h: C	HD: 5h	
		7					99	sr, p	439	1986			l: KF, MA, PN	96h: HD	480
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW 2,4-dichlorophenoxyacetic acid (2,4-D) = 221															
(a) plus 2-methoxy-3,6-dichlorobenzoic acid (abbreviated "dicamba").															
(b) dicamba 46.4 mg/l; estimated 15 h to peak concentration of 2,4-D and dicamba.															
(c) plus dicamba.															
(d) dicamba < 10 mg/l in serum.															
(e) dicamba 20 mg/l in serum.															
(f) plus a lesser quantity of 2,4,5-trichlorophenoxyacetic acid (2,4,5-T); serum level of 2,4,5-T at 28.5 h after ingestion was 410 mg/l.															
(g) plus a lesser quantity of 2,4,5-T (serum level of 2,4,5-T at 5 h after ingestion was 280 mg/l).															
(h) time to remission (time at hospital).															

Table 1b. Sub-lethal acute poisoning (single dose): Clinical observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to recovery): h
1	Friesen 1990	1	61F	S, A	50	ET, (a)	3	sr	392	1774			0h: C, L	0h: ST, AR,	
		1				ET	28	sr	126	570			22h: RN	FD/UL	72
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]															
MW 2,4-dichlorophenoxyacetic acid (2,4-D) = 221															
(a) time is uncertain: > 3, and > 28 h, respectively.															
Table 2a. Lethal acute poisoning (single dose): Clinical observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	Nilsson 1972	1	62M	S, A	120	(a)	1.5	sr, (b)	1200	5430			0h: C; 1.5h: SZ	0h: ST	
		1					96	sr	350	1584			24h: HCF, MA, G	1.5h: FD, AB	
		1					1.5	wb, (b)	600	2715			48h: DC, HA, PN, K	24h: AR	
		1					96	wb	175	792			OL: PN, PE, L, (c)		216
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]															
MW 2,4-dichlorophenoxyacetic acid (2,4-D) = 221															
(a) ingested 500 ml herbicide DIF (containing 24% 2,4-D, 24% dichlorprop (DCPP), and diethanolamine).															
(b) plasma/serum to whole blood ratio is 2:1 (according Flanagan 1990, see reference in Table: Sub-lethal acute poisoning (single dose): Clinical observations (time-related).															
(c) centrilobular necrosis.															
Table 2b. Lethal acute poisoning (single dose): Clinical observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
no cases															
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]															
MW 2,4-dichlorophenoxyacetic acid (2,4-D) = 221															

Table 3a. Post-mortem observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	Curry 1962	1	49F	NR		(a), (b)	NR	(c), pl	800	3620					E54
2	Herbich 1963	2	46M	A	13.5	(b)	NR	T, pl	954	4317			1h: V; 1.5h: C; 14h: RA	NT	14
		2											OL: PE, P		
3	Nilsson 1972	3	62M	S, A	120	X, (d), (e), (b)	NR	T, pl	260	1176			0h: C; 1.5h: SZ	NR	216
		3											24h: HCF, MA, G		
		3											48h: DC, HA, PN, K		
		3											OL: PN, PE, L, (h)		
4	Coutselinis 1977	4	Ad, F	NR	NR	(f), (b)	NR	T, pl, (g)	1652	7475			NR	NT	16
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW 2,4-dichlorophenoxyacetic acid (2,4-D) = 221															
(a) ingested uncertain amount (60-90 g) of "Dicotox Extra", containing ethyl-2,4-D.															
(b) time from death to autopsy is not reported (NR).															
(c) 2,4-D recovered from heart blood; whole blood concentration was 400 mg/l. Plasma/serum to whole blood ratio is 2:1 (according Flanagan 1990; see reference in Table: Sub-lethal acute poisoning (single dose): Clinical observations (time-related)).															
(d) the same case as in Table: Lethal acute poisoning (single dose): Clinical observations (time-related).															
(e) ingested 500 ml herbicide DIF (containing 24% 2,4-D, 24% dichlorprop (DCPP), and diethanolamine).															
(f) ingested a large dose of "Tributon 60", containing 2,4-D and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) in a ratio 3:2.															
(g) concentration of 2,4,5-T in blood was 182 mg/l.															
(h) centrilobular necrosis.															

Table 3b. Post-mortem observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	Nielsen 1965	1	23M	S, A	NR	(a)	12	pl	1400	6335			ba: V, SZ; OL: B, AP	NT	
2	Geldmacher 1966	2	33F	S, A	NR	(a)	24	T, pl	46	208			ba: C, V; 0h: C; 7h: H 22h: HCF; OL: PE, B	0h: ST	
3	Smith 1987	3	64F	A	NR	(a)	NR	pl	1440	6516			0h: DC; 12h: HCF OL: PE	0h: ST, AR, AB	
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]															
MW 2,4-dichlorophenoxyacetic acid = 221															
(a) time from death to autopsy.															