

chloral hydrate

76-chloral hydrate (CAS# 302-17-0)															
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
									CH	CH	TCE	TCE			
1	Vaziri 1977	1	19F	S, A	17.5	X	7.5				50	334	0h: DC, CY; I: CA, HA, (a)	0h: ST, AR	
		1					8.5				43	288	11.5h: RM	I: CR	
		1					10.5				30	201		5.5h: HD 6h	
		1					11.5				29	194			
		1					13.5				16	107			
2	Stalker 1978	2	38F	S, A	38		2	pl, (b)			330	2207	0h: DC, LP, HA, CY, MA;	0h: ST, AR, AA	
		2					21	pl, y			216	1445	23h: RM/C, HA	19h: HD 4.5h	
		2					22.5	pl			200	1338	25.5h: C		
		2					23.5	pl			173	1157	32.5h: RM/C		
		2					24.5	pl			159	1064			
		2					25.5	pl, y			141	943			
		2					43	pl			100	669			
		2					88	pl			40	268			
		2					131	pl			0.5	3			168
3	Gerretsen 1979	3	32F	S, A	20	(c)	2.5	pl			50	334	ba: C; 0h: DC, CA	ba: ST, AR	
		3						pl					16h: RM	0h: ST, CR	
4	Buur 1988	4	37F	S, A	20	(c), (d)	12	sr, (e)			60	401	0h: C; I: DC(f); 24h: RM	0h: ST, AR	
		4					26	sr, (e)			25	167		E10h: HP+ HD 4h	
		4												E20: HP+HD 4h	
5	Sing 1996	5	30F	S, A	NR	(g), (h)	2	sr, E			240	1605	0h: MS, HA; I: C, AR, CA	0h: ST	
		5					38	sr, E			105	702	RM 48h	I: CR, AA	48
6	Ludwigs 1996	6	29M	S, A	70	(i), ET	1.5	pl, (j), E			209	1398	ba: C, CY, HA	0h: ST, AR	
		6					4	pl, p, E			239	1599	0h: DC, LP, RA, MA, K	I: CR	
		6					10	pl, E			74.7	500	I: CA, G	3h: HP+HD 7h	
		6					14	pl, E			74.7	500	16h: RM/C		
		6					23	pl, E			44.8	300			
		6					35	pl, E			59.8	400			48
7	Lee 1998	7	68F	S, A	10	(k)	48				103	689	0h: RA, CA, G	24h:HA	312
8	GIZ-NORD 2001:126126	8	37F	NR	NR		2	sr			57	381	2h: C	ST	NR
9	GIZ-NORD 1997:29642	9	28F	NR	NR		12	sr			100	669	MS	ST	NR

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Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]												
MW chloral hydrate (CH) = 165.4												
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)												
(a) hypothermia.												
(b) no other drugs detected in blood/urine.												
(c) ingested CH solution.												
(d) plus 400 mg diazepam and 500 mg clomipramine.												
(e) concentration of another metabolite of CH, trichloroacetic acid (TCA), was 150 and 50 mg/l, respectively.												
(f) no arrhythmias (possibly an effect by diazepam?).												
(g) maximum 48 g of CH solution.												
(h) uncertain 2 h value.												
(i) plus alcohol.												
(j) admission blood concentration of alcohol was 19 mmol/l.												
(k) a history of depression.												

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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
									CH	CH	TCE	TCE			
1	Loeser 1965	1	NR		NR			(c)	22.0	133					48
2	Berry 1975	2	NR	S, A		(a)					570	3813	C(grade 4)		
		2	NR	S, A		(a)					450	3010	C(grade 4)		
		2	NR	S, A		(a)					340	2274	C(grade 4)		
		2	NR	S, A		(a)					130	870	C(grade 3)		
3	Gerretsen 1979	3	39F	S, A	25	(b)		(d)			118	789	0h: DC; 20h: RM	0h: ST, AR;	
		3												3.5h: HP	48
		4	41F	S, A	12.5			(e)			50	334	0h: DC; 14h: RM	0h: ST, AR	
		4												HP	48
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW chloral hydrate (CH) = 165.4															
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)															
(a) probably survivors, no other drugs detected.															
(b) ingested CH together with benzodiazepines.															
(c) late, post hemodialysis value.															
(d) trichloroacetic acid (TCA) concentration 200 mg/l.															
(e) TCA concentration 180 mg/l.															

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
									CH	CH	TCE	TCE			
no cases															
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW chloral hydrate (CH) = 165.4															
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)															
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
									CH	CH	TCE	TCE			
1	AAPCC 1990:542	1	38	S, A	NR								ba: CA		
2	Gaulier 2001	2	30M	S	10	(a)		sr			57	381.3	0h: C, RA, DC		216
		3	29F	S	NR	(b)		sr			29	194.0	0h:RA		72
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW chloral hydrate (CH) = 165.4															
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)															
(a) alcoholic; ingested CH syrup.															
(b) alcohol- and tobacco-addict; depressed, epileptic; ingested CH syrup.															

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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
									CH	CH	TCE	TCE			
1	Baselt 1995	1	25F		NR						55	368			E2
		2	36M	S, Z	15	(a), (b)	34	(c)	80	484	190	1271	OL		0.5
2	Levine 1985	3	27M	S, A	NR	(d), (e)	NR	(f)			1700	11370	PE	NR	E1
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]															
MW chloral hydrate (CH) = 165.4															
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)															
(a) chronic medication of 5 g CH each evening (tolerant).															
(b) ingested 50% CH-solution.															
(c) probably pre-peak values (author's comment).															
(d) drug abuser.															
(e) pure CH dissolved in soda water.															
(f) no other drugs detected in blood.															

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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
									CH	CH	TCE	TCE			
1	AAPCC 1989:510	1	38	S, A				(a)			216	1444	ba: CA		
2	Bonnichsen 1966	2	NR						58	351					
		3	NR						34	205					
3	Jain 1967	4	50F			(b)					9	60	fd		
4	Rehling 1967	5	7 cases			(c)		(d)			140	936			
5	Berry 1975	6	NR	S, A							550	3679			
		7	NR	S, A							400	2675			
		8	NR	S, A							480	3210			
6	Baselt 1977	9	4 cases			(e)		(d)			265	1772			
7	McBay 1980	10	16 cases			(f)		(d)			168	1123			
8	Jastak 1988	11	22F								71	475			
9	Heller 1992	12	35F	S, A		(i)		(g)			127	849	OL: no		
10	Meyer 1995	13	32F			(h)					146	976			
11	Druid 1977	14	16 cases			(f)		(d)			125	836			
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW chloral hydrate (CH) = 165.4															
MW trichloroethanol (TCE) = 149.5 (toxic metabolite of CH)															
(a) CH < 0.02 mg/l, and haloperidol and temazepam < 0.02 mg/l.															
(b) probably a mixed intoxication.															
(c) intoxication with CH only.															
(d) average value.															
(e) acute ingestion of 15-30 g CH.															
(f) pure CH intoxication in all cases.															
(g) acetaminophen and oxycodone detected in urine.															
(h) ingested CH syrup.															