

History of Health Risk Limits Rules Values, by Chemical, 1993 to November 2023

(Note: This table contains only HRLs adopted into rule. Other more recent Health-Based Guidance might exist for a contaminant.)

Find current recommended water guidance on the [Human Health-Based Water Guidance Table \(https://www.health.state.mn.us/communities/environment/risk/guidance/gw/table.html\)](https://www.health.state.mn.us/communities/environment/risk/guidance/gw/table.html)

The Table shows Health Risk Limits value and the year adopted into rule (Minnesota Rules, 4717.7500 and 4717.7860. The current value appears with an asterisk (*) and previous value is superseded, unless otherwise noted. Values are in µg/L.

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
83-32-9	Acenaphthene	Acute									ND*	
83-32-9	Acenaphthene	Short Term									ND *	
83-32-9	Acenaphthene	Subchronic									200 *	
83-32-9	Acenaphthene	Chronic	400								100 *	
83-32-9	Acenaphthene	Cancer									NA*	
103-90-2	Acetaminophen	Acute								200 *		
103-90-2	Acetaminophen	Short Term								200 *		
103-90-2	Acetaminophen	Subchronic								200 *		
103-90-2	Acetaminophen	Chronic								200 *		
103-90-2	Acetaminophen	Cancer								NA *		
34256-82-1	Acetochlor	Acute					40				ND *	
34256-82-1	Acetochlor	Short Term					40				30 *	
34256-82-1	Acetochlor	Subchronic					40				30 *	
34256-82-1	Acetochlor	Chronic					9				20 *	
34256-82-1	Acetochlor	Cancer					NA				NA *	
187022-11-3	Acetochlor ESA	Acute						ND			ND *	
187022-11-3	Acetochlor ESA	Short Term						600			500 *	
187022-11-3	Acetochlor ESA	Subchronic						600			500 *	
187022-11-3	Acetochlor ESA	Chronic						300			300 *	
187022-11-3	Acetochlor ESA	Cancer						NA			NA *	

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
194992-44-4	Acetochlor OXA	Acute						ND			ND *	
194992-44-4	Acetochlor OXA	Short Term						200			100 *	
194992-44-4	Acetochlor OXA	Subchronic						200			100 *	
194992-44-4	Acetochlor OXA	Chronic						100			90 *	
194992-44-4	Acetochlor OXA	Cancer						NA			NA *	
67-64-1	Acetone	Acute						ND				ND *
67-64-1	Acetone	Short Term						9,000				5,000 *
67-64-1	Acetone	Subchronic						8,000				5,000 *
67-64-1	Acetone	Chronic	700					4,000				3,000 *
67-64-1	Acetone	Cancer						NA				NA *
21145-77-7	6-Acetyl-1,1,2,4,4,7 hexamethyltetraline (AHTN)	Acute									ND *	
21145-77-7	6-Acetyl-1,1,2,4,4,7 hexamethyltetraline (AHTN)	Short Term									100 *	
21145-77-7	6-Acetyl-1,1,2,4,4,7 hexamethyltetraline (AHTN)	Subchronic									30 *	
21145-77-7	6-Acetyl-1,1,2,4,4,7 hexamethyltetraline (AHTN)	Chronic									20 *	
21145-77-7	6-Acetyl-1,1,2,4,4,7 hexamethyltetraline (AHTN)	Cancer									NA *	
79-06-1	Acrylamide	Acute									ND *	
79-06-1	Acrylamide	Short Term									7 *	
79-06-1	Acrylamide	Subchronic									7 *	
79-06-1	Acrylamide	Chronic									7 *	
79-06-1	Acrylamide	Cancer									0.2 *	
15972-60-8	Alachlor	Acute					ND				ND *	
15972-60-8	Alachlor	Short Term					200				100 *	
15972-60-8	Alachlor	Subchronic					30				60 *	
15972-60-8	Alachlor	Chronic		4	2		5				9 *	
15972-60-8	Alachlor	Cancer					NA				NA *	
116-06-3	Aldicarb	Chronic	1 *									

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
107-05-1	Allyl Chloride	Chronic		30 *								
1066-51-9	Aminomethylphosphonic acid (AMPA)	Acute										ND *
1066-51-9	Aminomethylphosphonic acid (AMPA)	Short Term										ND *
1066-51-9	Aminomethylphosphonic acid (AMPA)	Subchronic										3,000 *
1066-51-9	Aminomethylphosphonic acid (AMPA)	Chronic										1,000 *
1066-51-9	Aminomethylphosphonic acid (AMPA)	Cancer										NA *
120-12-7	Anthracene	Chronic	2,000 *									
7440-36-0	Antimony	Chronic	6 *									
1912-24-9	Atrazine	Chronic	20 (Added after initial posting)			3 *						
7440-39-3	Barium	Chronic	2,000 *									
25057-89-0	Bentazon	Acute								400 *		
25057-89-0	Bentazon	Short Term								60 *		
25057-89-0	Bentazon	Subchronic								50 *		
25057-89-0	Bentazon	Chronic								30 *		
25057-89-0	Bentazon	Cancer								NA *		
71-43-2	Benzene	Acute					10 *					
71-43-2	Benzene	Short Term					10 *					
71-43-2	Benzene	Subchronic					3 *					
71-43-2	Benzene	Chronic					3 *					
71-43-2	Benzene	Cancer	10				2 *					
50-32-8	Benzo[a]pyrene	Acute										ND *
50-32-8	Benzo[a]pyrene	Short Term										0.5 *
50-32-8	Benzo[a]pyrene	Subchronic										0.5 *
50-32-8	Benzo[a]pyrene	Chronic										0.5 *
50-32-8	Benzo[a]pyrene	Cancer										0.1 *
65-85-0	Benzoic Acid	Chronic	30,000 *									
119-61-9	Benzophenone	Acute										ND *
119-61-9	Benzophenone	Short Term										900 *
119-61-9	Benzophenone	Subchronic										100 *

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
119-61-9	Benzophenone	Chronic										100 *
119-61-9	Benzophenone	Cancer										NA *
95-14-7	1H-Benzotriazole	Acute										ND *
95-14-7	1H-Benzotriazole	Short Term										20 *
95-14-7	1H-Benzotriazole	Subchronic										20*
95-14-7	1H-Benzotriazole	Chronic										20*
95-14-7	1H-Benzotriazole	Cancer										NA *
7440-41-7	Beryllium	Cancer	0.08 *									
92-52-4	1,1-Biphenyl	Acute										400 *
92-52-4	1,1-Biphenyl	Short Term										100 *
92-52-4	1,1-Biphenyl	Subchronic										100*
92-52-4	1,1-Biphenyl	Chronic	300									100 *
92-52-4	1,1-Biphenyl	Cancer										10 *
111-44-4	Bis(2-chloroethyl) ether	Cancer	0.3 *									
542-88-1	Bis(2-chloromethyl) ether	Cancer	0.002 *									
80-05-7	Bisphenol A	Acute									ND *	
80-05-7	Bisphenol A	Short Term									100 *	
80-05-7	Bisphenol A	Subchronic									20 *	
80-05-7	Bisphenol A	Chronic									20 *	
80-05-7	Bisphenol A	Cancer									NA *	
7440-42-8	Boron	Chronic		600 (Repealed in 2011)								
75-27-4	Bromodichloromethane	Acute										400 *
		Short Term										30 *
		Subchronic										30 *
		Chronic										30 *
		Cancer	6									3 *
75-25-2	Bromoform	Cancer	40 *									
74-83-9	Bromomethane	Chronic	10 *									
71-36-3	Butanol, 1-	Chronic	700 *									
85-68-7	Butyl benzyl phthalate	Acute									100 *	

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
85-68-7	Butyl benzyl phthalate	Short Term								100 *		
85-68-7	Butyl benzyl phthalate	Subchronic								100 *		
85-68-7	Butyl benzyl phthalate	Chronic	100							100 *		
85-68-7	Butyl benzyl phthalate	Cancer								NA *		
85-70-1	Butylphthalyl butylglycolate	Chronic	7000 *									
7440-43-9	Cadmium	Acute								5 *		
7440-43-9	Cadmium	Short Term								1 *		
7440-43-9	Cadmium	Subchronic								1 *		
7440-43-9	Cadmium	Chronic	4							0.5 *		
7440-43-9	Cadmium	Cancer								NA *		
298-46-4	Carbamazepine	Acute							40 *			
298-46-4	Carbamazepine	Short Term							40 *			
298-46-4	Carbamazepine	Subchronic							40 *			
298-46-4	Carbamazepine	Chronic							40 *			
298-46-4	Carbamazepine	Cancer							NA *			
75-15-0	Carbon Disulfide	Chronic	700 *									
56-23-5	Carbon tetrachloride	Acute							100 *			
56-23-5	Carbon tetrachloride	Short Term							3 *			
56-23-5	Carbon tetrachloride	Subchronic							3 *			
56-23-5	Carbon tetrachloride	Chronic							3 *			
56-23-5	Carbon tetrachloride	Cancer	3						1 *			
133-90-4	Chloramben	Chronic		100 *								
108-90-7	Chlorobenzene	Chronic	100									
67-66-3	Chloroform	Acute					ND				ND *	
67-66-3	Chloroform	Short Term					30				20 *	
67-66-3	Chloroform	Subchronic					30				20 *	
67-66-3	Chloroform	Chronic					30				20 *	
67-66-3	Chloroform	Cancer	60				NA				NA *	
95-57-8	2-Chlorophenol	Chronic	30 *									
1897-45-6	Chlorothalonil	Cancer		30 *								
16065-83-1	Chromium III	Chronic		20,000 *								

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
18540-29-9	Chromium VI	Chronic	100 *									
210880-92-5, 205510-53-8	Clothianidin	Acute									ND *	
210880-92-5, 205510-53-8	Clothianidin	Short Term									200 *	
210880-92-5, 205510-53-8	Clothianidin	Subchronic									200 *	
210880-92-5, 205510-53-8	Clothianidin	Chronic									200 *	
210880-92-5, 205510-53-8	Clothianidin	Cancer									NA *	
98-82-8	Cumene	Chronic	300 *									
21725-46-2	Cyanazine	Acute					2				3 *	
21725-46-2	Cyanazine	Short Term					2				3 *	
21725-46-2	Cyanazine	Subchronic					2				3 *	
21725-46-2	Cyanazine	Chronic					1				1 *	
21725-46-2	Cyanazine	Cancer					NA				NA	
57-12-5	Cyanide, free	Chronic	100 *									
117-81-7	Di(2-ethylhexyl)phthalate	Acute								20 *		
117-81-7	Di(2-ethylhexyl)phthalate	Short Term								20 *		
117-81-7	Di(2-ethylhexyl)phthalate	Subchronic								20 *		
117-81-7	Di(2-ethylhexyl)phthalate	Chronic	20			6				20 *		
117-81-7	Di(2-ethylhexyl)phthalate	Cancer								7 *		
124-48-1	Dibromochloromethane	Chronic	10 *									
106-93-4	1,2-Dibromoethane	Cancer	0.004 *									
84-74-2	Dibutyl phthalate	Acute								20 *		
84-74-2	Dibutyl phthalate	Short Term								20 *		
84-74-2	Dibutyl phthalate	Subchronic								20 *		
84-74-2	Dibutyl phthalate	Chronic	700							20 *		
84-74-2	Dibutyl phthalate	Cancer								NA *		
1918-00-9	Dicamba	Chronic	200 *									

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
95-50-1	1,2-Dichlorobenzene	Chronic	600 *									
106-46-7	1,4-Dichlorobenzene	Acute										ND *
106-46-7	1,4-Dichlorobenzene	Short Term										50 *
106-46-7	1,4-Dichlorobenzene	Subchronic										50 *
106-46-7	1,4-Dichlorobenzene	Chronic										50 *
106-46-7	1,4-Dichlorobenzene	Cancer		10								NA *
91-94-1	3,3'-Dichlorobenzidine	Cancer	0.8 *									
75-71-8	Dichlorodifluoromethane	Acute						ND *				
75-71-8	Dichlorodifluoromethane	Short Term						ND *				
75-71-8	Dichlorodifluoromethane	Subchronic						ND *				
75-71-8	Dichlorodifluoromethane	Chronic	1,000					700 *				
75-71-8	Dichlorodifluoromethane	Cancer						NA *				
72-54-8	p,p'-Dichlorodiphenyldichloroethane (DDD)	Cancer	1 *									
72-55-9	p,p'-Dichlorodiphenyldichloroethylene (DDE)	Cancer	1 *									
50-29-3	p,p'-Dichlorodiphenyltrichloroethane (DDT)	Cancer	1 *									
107-06-2	1,2-Dichloroethane (EDC)	Acute							ND *			
107-06-2	1,2-Dichloroethane (EDC)	Short Term							200 *			
107-06-2	1,2-Dichloroethane (EDC)	Subchronic							200 *			
107-06-2	1,2-Dichloroethane (EDC)	Chronic							60 *			
107-06-2	1,2-Dichloroethane (EDC)	Cancer	4						1 *			
75-34-3	Dichloroethane, 1,1-	Chronic		70 (Repealed)								
75-35-4	1,1-Dichloroethylene	Acute						ND				ND *
75-35-4	1,1-Dichloroethylene	Short Term						ND				ND *
75-35-4	1,1-Dichloroethylene	Subchronic						200				200 *
75-35-4	1,1-Dichloroethylene	Chronic	6					200				200 *
75-35-4	1,1-Dichloroethylene	Cancer						NA				NA *
156-59-2	cis-1,2-Dichloroethylene	Acute					ND				ND *	
156-59-2	cis-1,2-Dichloroethylene	Short Term					70				20 *	
156-59-2	cis-1,2-Dichloroethylene	Subchronic					70				10 *	

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
156-59-2	cis-1,2-Dichloroethylene	Chronic		70			50				6 *	
156-59-2	cis-1,2-Dichloroethylene	Cancer					NA				NA *	
156-60-5	trans-1,2-Dichloroethylene	Acute							ND			ND *
156-60-5	trans-1,2-Dichloroethylene	Short Term							ND			ND *
156-60-5	trans-1,2-Dichloroethylene	Subchronic							200			50 *
156-60-5	trans-1,2-Dichloroethylene	Chronic	100						40			9 *
156-60-5	trans-1,2-Dichloroethylene	Cancer							NA			NA *
75-09-2	Dichloromethane	Chronic	50			5 *						
120-83-2	2,4-Dichlorophenol	Chronic	20									
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	Acute									ND *	
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	Short Term									30 *	
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	Subchronic									30 *	
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	Chronic	70								30 *	
94-75-7	2,4-Dichlorophenoxyacetic acid (2,4-D)	Cancer									ND *	
78-87-5	1,2-Dichloropropane	Acute										ND *
78-87-5	1,2-Dichloropropane	Short Term										20 *
78-87-5	1,2-Dichloropropane	Subchronic										20 *
78-87-5	1,2-Dichloropropane	Chronic										20 *
78-87-5	1,2-Dichloropropane	Cancer		5								3 *
542-75-6	1,3-Dichloropropene	Cancer		2 *								
60-57-1	Dieldrin	Acute					0.2				ND *	
60-57-1	Dieldrin	Short Term					0.2				0.2 *	
60-57-1	Dieldrin	Subchronic					0.2				0.2 *	
60-57-1	Dieldrin	Chronic					0.2				0.2 *	
60-57-1	Dieldrin	Cancer					0.006				0.006 *	
84-66-2	Diethyl phthalate	Chronic	6,000 *									
134-62-3	N,N-Diethyl-meta-toluamide (DEET)	Acute							ND *			
134-62-3	N,N-Diethyl-meta-toluamide (DEET)	Short Term							200 *			
134-62-3	N,N-Diethyl-meta-toluamide (DEET)	Subchronic							200 *			
134-62-3	N,N-Diethyl-meta-toluamide (DEET)	Chronic							200 *			
134-62-3	N,N-Diethyl-meta-toluamide (DEET)	Cancer							NA *			

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CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
87674-68-8	Dimethenamid	Acute								ND *		
87674-68-8	Dimethenamid	Short Term								600 *		
87674-68-8	Dimethenamid	Subchronic								600 *		
87674-68-8	Dimethenamid	Chronic								300 *		
87674-68-8	Dimethenamid	Cancer								NA *		
163515-14-8	Dimethenamid-p	Acute								ND *		
163515-14-8	Dimethenamid-p	Short Term								600 *		
163515-14-8	Dimethenamid-p	Subchronic								600 *		
163515-14-8	Dimethenamid-p	Chronic								300 *		
163515-14-8	Dimethenamid-p	Cancer								NA *		
131-11-3	Dimethyl phthalate	Chronic		70,000 *								
105-67-9	2,4-Dimethylphenol	Chronic	100 *									
51-28-5	2,4-Dinitrophenol	Chronic	10 *									
88-85-7	Dinoseb	Acute									ND *	
88-85-7	Dinoseb	Short Term									8 *	
88-85-7	Dinoseb	Subchronic									8 *	
88-85-7	Dinoseb	Chronic									8 *	
88-85-7	Dinoseb	Cancer									NA *	
123-91-1	1,4-Dioxane	Acute							ND *			
123-91-1	1,4-Dioxane	Short Term							ND *			
123-91-1	1,4-Dioxane	Subchronic							300 *			
123-91-1	1,4-Dioxane	Chronic							100 *			
123-91-1	1,4-Dioxane	Cancer							1 *			
298-04-4	Disulfoton	Chronic		0.3 *								
57-63-6	17 α -Ethinylestradiol	Acute										ND *
57-63-6	17 α -Ethinylestradiol	Short Term										0.0005 *
57-63-6	17 α -Ethinylestradiol	Subchronic										0.0002 *
57-63-6	17 α -Ethinylestradiol	Chronic										0.0002 *
57-63-6	17 α -Ethinylestradiol	Cancer										ND *
100-41-4	Ethylbenzene	Acute						ND				ND *
100-41-4	Ethylbenzene	Short Term						50				40 *

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100-41-4	Ethylbenzene	Subchronic						50				40 *
100-41-4	Ethylbenzene	Chronic	700					50				40 *
100-41-4	Ethylbenzene	Cancer						NA				NA *
759-94-4	S-Ethyl dipropylthiocarbamate (EPTC)	Acute									300 *	
759-94-4	S-Ethyl dipropylthiocarbamate (EPTC)	Short Term									300 *	
759-94-4	S-Ethyl dipropylthiocarbamate (EPTC)	Subchronic									90 *	
759-94-4	S-Ethyl dipropylthiocarbamate (EPTC)	Chronic	200								40 *	
759-94-4	S-Ethyl dipropylthiocarbamate (EPTC)	Cancer									NA *	
60-29-7	Ethyl ether	Chronic	1,000*									
107-21-1	Ethylene glycol	Acute						4,000				ND *
107-21-1	Ethylene glycol	Short Term						4,000				2,000 *
107-21-1	Ethylene glycol	Subchronic						2,000				2,000 *
107-21-1	Ethylene glycol	Chronic		10,000				2,000				2,000 *
107-21-1	Ethylene glycol	Cancer						NA				NA *
206-44-0	Fluoranthene	Acute									ND *	
206-44-0	Fluoranthene	Short Term									ND *	
206-44-0	Fluoranthene	Subchronic									200 *	
206-44-0	Fluoranthene	Chronic	300								70 *	
206-44-0	Fluoranthene	Cancer									NA *	
86-73-7	Fluorene	Acute										ND *
86-73-7	Fluorene	Short Term										ND *
86-73-7	Fluorene	Subchronic										200 *
86-73-7	Fluorene	Chronic	300									80 *
86-73-7	Fluorene	Cancer										NA *
72178-02-0	Fomesafen	Acute										ND *
72178-02-0	Fomesafen	Short Term										200 *
72178-02-0	Fomesafen	Subchronic										200 *
72178-02-0	Fomesafen	Chronic										20 *
72178-02-0	Fomesafen	Cancer										NA *
50-00-0	Formaldehyde	Chronic		1,000 *								
76-44-8	Heptachlor	Cancer	0.08 *									

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1024-57-3	Heptachlor epoxide	Cancer	0.04 *									
118-74-1	Hexachlorobenzene	Cancer	0.2 *									
87-68-3	Hexachlorobutadiene	Chronic	1 *									
110-54-3	n-Hexane	Chronic		400								repealed in 2023*
138261-41-3	Imidacloprid	Acute										100 *
138261-41-3	Imidacloprid	Short Term										2 *
138261-41-3	Imidacloprid	Subchronic										2 *
138261-41-3	Imidacloprid	Chronic										2 *
138261-41-3	Imidacloprid	Cancer										NA *
78-59-1	Isophorone	Chronic	100 *									
330-55-2	Linuron	Chronic	1 *									
7439-96-5	Manganese	Acute										ND *
7439-96-5	Manganese	Short Term										100 *
7439-96-5	Manganese	Subchronic										ND *
7439-96-5	Manganese	Chronic	100									ND *
7439-96-5	Manganese	Cancer										NA *
67-56-1	Methanol	Chronic		3,000 *								
94-74-6	2-Methyl-4-Chlorophenoxyacetic acid	Chronic	3 *									
78-93-3	Methyl ethyl ketone	Chronic		4,000 *								
108-10-1	Methyl isobutyl ketone	Chronic		300 *								
95-48-7	2-Methylphenol	Chronic	30 *									
108-39-4	3-Methylphenol	Chronic	30 *									
106-44-5	4-Methylphenol	Chronic		3 *								
51218-45-2	Metolachlor	Acute						400				ND *
51218-45-2	Metolachlor	Short Term						400				300 *
51218-45-2	Metolachlor	Subchronic						300				300 *
51218-45-2	Metolachlor	Chronic	100					300				300 *
51218-45-2	Metolachlor	Cancer						NA				NA *
87392-12-9	s-Metolachlor	Acute						400				ND *

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
87392-12-9	s-Metolachlor	Short Term						400				300 *
87392-12-9	s-Metolachlor	Subchronic						300				300 *
87392-12-9	s-Metolachlor	Chronic						300				300 *
87392-12-9	s-Metolachlor	Cancer						NA				NA *
171118-09-5	Metolachlor ESA	Acute						ND				ND *
171118-09-5	Metolachlor ESA	Short Term						ND				ND *
171118-09-5	Metolachlor ESA	Subchronic						4,000				7,000 *
171118-09-5	Metolachlor ESA	Chronic						800				1,000 *
171118-09-5	Metolachlor ESA	Cancer						NA				NA *
152019-73-3	Metolachlor OXA	Acute						ND				ND *
152019-73-3	Metolachlor OXA	Short Term						3000				5,000 *
152019-73-3	Metolachlor OXA	Subchronic						3000				5,000 *
152019-73-3	Metolachlor OXA	Chronic						800				1,000 *
152019-73-3	Metolachlor OXA	Cancer						NA				NA *
21087-64-9	Metribuzin	Acute							30 *			
21087-64-9	Metribuzin	Short Term							10 *			
21087-64-9	Metribuzin	Subchronic							10 *			
21087-64-9	Metribuzin	Chronic	200						10 *			
21087-64-9	Metribuzin	Cancer							NA *			
91-20-3	Naphthalene	Acute							70 *			
91-20-3	Naphthalene	Short Term							70 *			
91-20-3	Naphthalene	Subchronic							70 *			
91-20-3	Naphthalene	Chronic					300		70 *			
91-20-3	Naphthalene	Cancer							NA *			
7440-02-0	Nickel	Chronic	100 *									
14797-55-8	Nitrate (as N)	Acute	10000				10,000 *					
86-30-6	N-Nitrosodiphenylamine	Cancer	70 *									
84852-15-3	Nonylphenol	Acute										ND *
84852-15-3	Nonylphenol	Short Term										100 *
84852-15-3	Nonylphenol	Subchronic										40 *
84852-15-3	Nonylphenol	Chronic										20 *

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
84852-15-3	Nonylphenol	Cancer										NA *
140-66-9	4-tert-Octylphenol	Acute										ND *
140-66-9	4-tert-Octylphenol	Short Term										100 *
140-66-9	4-tert-Octylphenol	Subchronic										100 *
140-66-9	4-tert-Octylphenol	Chronic										100 *
140-66-9	4-tert-Octylphenol	Cancer										NA *
87-86-5	Pentachlorophenol	Acute								7 *		
87-86-5	Pentachlorophenol	Short Term								7 *		
87-86-5	Pentachlorophenol	Subchronic								7 *		
87-86-5	Pentachlorophenol	Chronic	3			1				7 *		
87-86-5	Pentachlorophenol	Cancer								0.3 *		
375-73-5	Perfluorobutane sulfonate (PFBS)	Acute						ND				ND *
375-73-5	Perfluorobutane sulfonate (PFBS)	Short Term						ND				0.1 *
375-73-5	Perfluorobutane sulfonate (PFBS)	Subchronic						9				0.1 *
375-73-5	Perfluorobutane sulfonate (PFBS)	Chronic						7				0.1 *
375-73-5	Perfluorobutane sulfonate (PFBS)	Cancer						NA				NA *
375-22-4	Perfluorobutyrate (PFBA)	Acute						ND			ND *	
375-22-4	Perfluorobutyrate (PFBA)	Short Term						7			7 *	
375-22-4	Perfluorobutyrate (PFBA)	Subchronic						7			7 *	
375-22-4	Perfluorobutyrate (PFBA)	Chronic						7			7 *	
375-22-4	Perfluorobutyrate (PFBA)	Cancer						NA			NA *	
108427-53-8; 355-46-4; 3871-99-6	Perfluorohexane sulfonate (PFHxS)	Acute										ND *
108427-53-8; 355-46-4; 3871-99-6	Perfluorohexane sulfonate (PFHxS)	Short Term										0.047 *
108427-53-8; 355-46-4; 3871-99-6	Perfluorohexane sulfonate (PFHxS)	Subchronic										0.047 *
108427-53-8; 355-46-4; 3871-99-6	Perfluorohexane sulfonate (PFHxS)	Chronic										0.047 *
108427-53-8; 355-46-4; 3871-99-6	Perfluorohexane sulfonate (PFHxS)	Cancer										NA *

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
92612-52-7; 307-24-4; 21615-47-4; 2923-26-4	Perfluorohexanoate (PFHxA)	Acute										ND *
92612-52-7; 307-24-4; 21615-47-4; 2923-26-4	Perfluorohexanoate (PFHxA)	Short Term										0.2 *
92612-52-7; 307-24-4; 21615-47-4; 2923-26-4	Perfluorohexanoate (PFHxA)	Subchronic										0.2 *
92612-52-7; 307-24-4; 21615-47-4; 2923-26-4	Perfluorohexanoate (PFHxA)	Chronic										0.2 *
92612-52-7; 307-24-4; 21615-47-4; 2923-26-4	Perfluorohexanoate (PFHxA)	Cancer										NA *
1763-23-1; 29081-56-9; 70225-14-8; 2795-39-3; 29457-72-5	Perfluorooctane sulfonate (acid) (PFOS)	Acute					ND *					
1763-23-1; 29081-56-9; 70225-14-8; 2795-39-3; 29457-72-5	Perfluorooctane sulfonate (acid) (PFOS)	Short Term					ND *					
1763-23-1; 29081-56-9; 70225-14-8; 2795-39-3; 29457-72-5	Perfluorooctane sulfonate (acid) (PFOS)	Subchronic					ND *					
1763-23-1; 29081-56-9; 70225-14-8; 2795-39-3; 29457-72-5	Perfluorooctane sulfonate (acid) (PFOS)	Chronic			0.5		0.3 *					
1763-23-1; 29081-56-9; 70225-14-8; 2795-39-3; 29457-72-5	Perfluorooctane sulfonate (acid) (PFOS)	Cancer					NA *					
335-67-1; 335-66-0; 3825-26-1; 2395-00-8; 335-93-3; 335-95-5	Perfluorooctanoic acid (PFOA)	Acute					ND				NA *	
335-67-1; 335-66-0; 3825-26-1; 2395-00-8; 335-93-3; 335-95-5	Perfluorooctanoic acid (PFOA)	Short Term					ND				0.035 *	

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
335-67-1; 335-66-0; 3825-26-1; 2395-00-8; 335-93-3; 335-95-5	Perfluorooctanoic acid (PFOA)	Subchronic					ND				0.035 *	
335-67-1; 335-66-0; 3825-26-1; 2395-00-8; 335-93-3; 335-95-5	Perfluorooctanoic acid (PFOA)	Chronic			0.3		0.3				0.035*	
335-67-1; 335-66-0; 3825-26-1; 2395-00-8; 335-93-3; 335-95-5	Perfluorooctanoic acid (PFOA)	Cancer					NA				NA	
108-95-2	Phenol	Chronic	4,000 *									
1918-02-1	Picloram	Chronic	500 *									
1336-36-3	Polychlorinated biphenyls	Cancer		0.04 *								
1610-18-0	Prometon	Chronic	100 *									
1918-16-7	Propachlor	Chronic	90 *									
129-00-0	Pyrene	Acute									ND *	
129-00-0	Pyrene	Short Term									ND *	
129-00-0	Pyrene	Subchronic									90 *	
129-00-0	Pyrene	Chronic	200								50 *	
129-00-0	Pyrene	Cancer									NA *	
91-22-5	Quinoline	Acute										ND *
91-22-5	Quinoline	Short Term										ND *
91-22-5	Quinoline	Subchronic										ND *
91-22-5	Quinoline	Chronic										4 *
91-22-5	Quinoline	Cancer										0.03 *
7782-49-2	Selenium	Chronic	30 *									
7440-22-4	Silver	Chronic	30 *									
122-34-9	Simazine	Chronic		30		4 *						
100-42-5	Styrene											
57-68-1	Sulfamethazine	Acute								ND *		
57-68-1	Sulfamethazine	Short Term								100 *		
57-68-1	Sulfamethazine	Subchronic								100 *		

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
57-68-1	Sulfamethazine	Chronic								100 *		
57-68-1	Sulfamethazine	Cancer								NA *		
1981-58-41	Sulfamethazine, sodium salt	Acute								ND *		
1981-58-41	Sulfamethazine, sodium salt	Short Term								100 *		
1981-58-41	Sulfamethazine, sodium salt	Subchronic								100 *		
1981-58-41	Sulfamethazine, sodium salt	Chronic								100 *		
1981-58-41	Sulfamethazine, sodium salt	Cancer								NA *		
630-20-6	1,1,1,2-Tetrachloroethane	Chronic	70 *									
79-34-5	1,1,2,2-Tetrachloroethane	Cancer		2 *								
127-18-4	Tetrachloroethylene	Acute										ND *
127-18-4	Tetrachloroethylene	Short Term										ND *
127-18-4	Tetrachloroethylene	Subchronic										7 *
127-18-4	Tetrachloroethylene	Chronic										7 *
127-18-4	Tetrachloroethylene	Cancer		7		5						4 *
109-99-9	Tetrahydrofuran	Acute									ND *	
109-99-9	Tetrahydrofuran	Short Term									600 *	
109-99-9	Tetrahydrofuran	Subchronic									600 *	
109-99-9	Tetrahydrofuran	Chronic									600 *	
109-99-9	Tetrahydrofuran	Cancer									ND *	
7440-28-0	Thallium	Chronic		0.6 *								
153719-23-4	Thiamethoxam	Acute									ND *	
153719-23-4	Thiamethoxam	Short Term									400 *	
153719-23-4	Thiamethoxam	Subchronic									200 *	
153719-23-4	Thiamethoxam	Chronic									200 *	
153719-23-4	Thiamethoxam	Cancer									NA *	
7440-31-5	Tin	Chronic		4000 *								
108-88-3	Toluene	Acute						ND				ND *
108-88-3	Toluene	Short Term						200				70 *
108-88-3	Toluene	Subchronic						200				70 *
108-88-3	Toluene	Chronic	1000					200				70 *
108-88-3	Toluene	Cancer						NA				NA *

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
8001-35-2	Toxaphene	Cancer	0.3*									
120-82-1	1,2,4-Trichlorobenzene	Acute							ND *			
120-82-1	1,2,4-Trichlorobenzene	Short Term							100 *			
120-82-1	1,2,4-Trichlorobenzene	Subchronic							100 *			
120-82-1	1,2,4-Trichlorobenzene	Chronic							4 *			
120-82-1	1,2,4-Trichlorobenzene	Cancer							NA *			
71-55-6	1,1,1-Trichloroethane	Acute					ND				ND *	
71-55-6	1,1,1-Trichloroethane	Short Term					ND				ND *	
71-55-6	1,1,1-Trichloroethane	Subchronic					20000				9,000 *	
71-55-6	1,1,1-Trichloroethane	Chronic		600			9000				5,000 *	
71-55-6	1,1,1-Trichloroethane	Cancer					NA				NA*	
79-00-5	1,1,2-Trichloroethane	Chronic	3 *									
79-01-6	Trichloroethylene	Acute								ND *		
79-01-6	Trichloroethylene	Short Term								0.4 *		
79-01-6	Trichloroethylene	Subchronic								0.4 *		
79-01-6	Trichloroethylene	Chronic								0.4 *		
79-01-6	Trichloroethylene	Cancer		30		5				2 *		
75-69-4	Trichlorofluoromethane	Chronic	2000 *									
88-06-2	2,4,6-Trichlorophenol	Cancer	30 *									
93-76-5	2,4,5-Trichlorophenoxyacetic acid	Chronic	70 *									
93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid	Chronic	60			50*						
96-18-4	1,2,3-Trichloropropane	Acute							7 *			
96-18-4	1,2,3-Trichloropropane	Short Term							7 *			
96-18-4	1,2,3-Trichloropropane	Subchronic							7 *			
96-18-4	1,2,3-Trichloropropane	Chronic	40						7 *			
96-18-4	1,2,3-Trichloropropane	Cancer							0.003 *			
3380-34-5	Triclosan	Acute								ND *		
3380-34-5	Triclosan	Short Term								50 *		
3380-34-5	Triclosan	Subchronic								50 *		
3380-34-5	Triclosan	Chronic								50 *		
3380-34-5	Triclosan	Cancer								NA *		

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
			200,000									
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	Chronic	*									
526-73-8	1,2,3-Trimethylbenzene	Acute										ND *
526-73-8	1,2,3-Trimethylbenzene	Short Term										30 *
526-73-8	1,2,3-Trimethylbenzene	Subchronic										30 *
526-73-8	1,2,3-Trimethylbenzene	Chronic										30 *
526-73-8	1,2,3-Trimethylbenzene	Cancer										NA *
95-63-6	1,2,4-Trimethylbenzene	Acute										ND *
95-63-6	1,2,4-Trimethylbenzene	Short Term										30 *
95-63-6	1,2,4-Trimethylbenzene	Subchronic										30 *
95-63-6	1,2,4-Trimethylbenzene	Chronic										30 *
95-63-6	1,2,4-Trimethylbenzene	Cancer										NA *
108-67-8	1,3,5-Trimethylbenzene	Acute					ND					ND *
108-67-8	1,3,5-Trimethylbenzene	Short Term					100					30 *
108-67-8	1,3,5-Trimethylbenzene	Subchronic					100					30 *
108-67-8	1,3,5-Trimethylbenzene	Chronic					100					30 *
108-67-8	1,3,5-Trimethylbenzene	Cancer					NA					NA *
99-35-4	1,3,5-Trinitrobenzene	Chronic	0.3 *									
78-51-3	Tris(2-butoxyethyl) phosphate (TBEP)	Acute										ND *
78-51-3	Tris(2-butoxyethyl) phosphate (TBEP)	Short Term										30 *
78-51-3	Tris(2-butoxyethyl) phosphate (TBEP)	Subchronic										30 *
78-51-3	Tris(2-butoxyethyl) phosphate (TBEP)	Chronic										30 *
78-51-3	Tris(2-butoxyethyl) phosphate (TBEP)	Cancer										NA *
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Acute							ND *			
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Short Term							300 *			
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Subchronic							200 *			
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Chronic							200 *			
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Cancer							5 *			
13674-87-8	Tris(1,3-dichloroisopropyl)phosphate (TDCPP)	Acute										ND *
13674-87-8	Tris(1,3-dichloroisopropyl)phosphate (TDCPP)	Short Term										ND *
13674-87-8	Tris(1,3-dichloroisopropyl)phosphate (TDCPP)	Subchronic										20 *

HISTORY OF HEALTH RISK LIMIT RULES VALUES

CAS_Number	Primary Chemical Name	Duration	1993	1994	2007	HRLMCL	2009	2011	2013	2015	2018	2023
13674-87-8	Tris(1,3-dichloroisopropyl)phosphate (TDCPP)	Chronic										8 *
13674-87-8	Tris(1,3-dichloroisopropyl)phosphate (TDCPP)	Cancer										0.8 *
7440-62-2	Vanadium	Chronic		50 *								
93413-69-5; 99300-78-4	Venlafaxine	Acute										ND *
93413-69-5; 99300-78-4	Venlafaxine	Short Term										10 *
93413-69-5; 99300-78-4	Venlafaxine	Subchronic										10 *
93413-69-5; 99300-78-4	Venlafaxine	Chronic										10 *
93413-69-5; 99300-78-4	Venlafaxine	Cancer										NA *
75-01-4	Vinyl chloride	Acute					ND				ND *	
75-01-4	Vinyl chloride	Short Term					ND				ND *	
75-01-4	Vinyl chloride	Subchronic					80				90 *	
75-01-4	Vinyl chloride	Chronic					10				10 *	
75-01-4	Vinyl chloride	Cancer		0.2			0.2				0.2 *	
1330-20-7	Xylenes	Acute						800				700 *
1330-20-7	Xylenes	Short Term						300				300 *
1330-20-7	Xylenes	Subchronic						300				300 *
1330-20-7	Xylenes	Chronic	10000					300				300 *
1330-20-7	Xylenes	Cancer						NA				NA *
7440-66-6	Zinc	Chronic		2000 *								

* Current Value, NA = Not applicable, ND = Not Derived

1993 - Added Atrazine after initial Notice, 1994 - Removed Styrene after initial Notice

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