

## CEC (1991) Data Sorted By Substance

Substance	CASRN	Form Tested	Testing Lab	Mean Corneal Swelling (%) - Minutes				
				30	75	120	180	240
Acetic acid	64-19-7	Liquid	TNO-CIVO	2	8	16	22	27
Acetic acid	64-19-7	Liquid	I.H.E.	16	23	31	40	50
Acetic acid	64-19-7	Liquid	SHELL	-	31	34	42	45
Brij 35	9002-92-0	Solution	TNO-CIVO	7	11	12	13	15
Brij 35	9002-92-0	Solution	I.H.E.	2	6	9	11	9
Brij 35	9002-92-0	Solution	SHELL	-	6	11	14	13
Benzalkonium chloride	8001-54-5	Solution	TNO-CIVO	14	26	37	51	52
Benzalkonium chloride	8001-54-5	Solution	I.H.E.	28	50	65	75	81
Benzalkonium chloride	8001-54-5	Solution	SHELL	-	45	83	107	115
Dimethyl sulfoxide	67-68-5	Solution	TNO-CIVO	11	14	16	17.0	20.0
Dimethyl sulfoxide	67-68-5	Solution	I.H.E.	4	6	6	3.0	-1.0
Dimethyl sulfoxide	67-68-5	Solution	SHELL	-	4	11	15.0	16.0
Sodium fluorecein	518-47-8	Solution	TNO-CIVO	1	0	0	-1	-1
Sodium fluorecein	518-47-8	Solution	I.H.E.	-1	1	3	3	1
Sodium fluorecein	518-47-8	Solution	SHELL	-	6	9	11	14
Glycerol	56-81-5	Solution	TNO-CIVO	6	6	5	5	4
Glycerol	56-81-5	Solution	I.H.E.	2	4	6	6	4
Glycerol	56-81-5	Solution	SHELL	-	0	1	4	8
Triacetin	102-76-1	Solution	TNO-CIVO	3	2	1	0	0
Triacetin	102-76-1	Solution	I.H.E.	4	4	5	5	0
Triacetin	102-76-1	Solution	SHELL	-	1	1	2	3
Mercury chloride	7546-30-7	Solution	TNO-CIVO	7	23	38	52	57
Mercury chloride	7546-30-7	Solution	I.H.E.	5	15	35	65	95
Mercury chloride	7546-30-7	Solution	SHELL	-	-	NT	NT	NT
Silver nitrate	7761-88-8	Solution	TNO-CIVO	15	13	8	9	9
Silver nitrate	7761-88-8	Solution	I.H.E.	9	14	18	21	20
Silver nitrate	7761-88-8	Solution	SHELL	-	15	17	20	21
Sodium hydroxide	1310-73-2	Solution	TNO-CIVO	27	34	35	44	52
Sodium hydroxide	1310-73-2	Solution	I.H.E.	37	47	64	69	81
Sodium hydroxide	1310-73-2	Solution	SHELL	-	35	49	60	69
Toluene	108-88-3	Liquid	TNO-CIVO	3	11	13	13	13
Toluene	108-88-3	Liquid	I.H.E.	4	7	8	9	7
Toluene	108-88-3	Liquid	SHELL	-	9	11	11	12
Triethanolamine	102-71-6	Solution	TNO-CIVO	1	0	0	1	1
Triethanolamine	102-71-6	Solution	I.H.E.	4	9	12	14	13
Triethanolamine	102-71-6	Solution	SHELL	-	1	2	4	5

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Substance	CASRN	Form Tested	Testing Lab	Mean Corneal Swelling (%) - Minutes				
				30	75	120	180	240
n-Hexane	110-54-3	Liquid	TNO-CIVO	2	2	2	0	0
n-Hexane	110-54-3	Liquid	I.H.E.	9	10	14	17	15
n-Hexane	110-54-3	Liquid	SHELL	-	0	1	3	6
Chloroform	67-66-3	Liquid	TNO-CIVO	14	19	22	29	29
Chloroform	67-66-3	Liquid	I.H.E.	16	26	34	30	46
Chloroform	67-66-3	Liquid	SHELL	-	6	10	13	17
2-Methoxyethanol	109-86-4	Liquid	TNO-CIVO	8	15	21	32	42
2-Methoxyethanol	109-86-4	Liquid	I.H.E.	15	25	30	39	46
2-Methoxyethanol	109-86-4	Liquid	SHELL	-	18	30	34	40
Butanol	71-36-3	Liquid	TNO-CIVO	22	29	35	44	49
Butanol	71-36-3	Liquid	I.H.E.	23	32	46	59	67
Butanol	71-36-3	Liquid	SHELL	-	33	42	53	65
Acetaldehyde	75-07-0	Liquid	TNO-CIVO	12	15	17	18	27
Acetaldehyde	75-07-0	Liquid	I.H.E.	7	10	17	29	36
Acetaldehyde	75-07-0	Liquid	SHELL	-	12	31	36	41
2-Butoxyethyl acetate	112-07-2	Liquid	TNO-CIVO	7	8	10	12	12
2-Butoxyethyl acetate	112-07-2	Liquid	I.H.E.	6	10	13	14	16
2-Butoxyethyl acetate	112-07-2	Liquid	SHELL	-	12	31	36	41
Sodium dodecyl sulfate	151-21-3	Solution	TNO-CIVO	8	13	17	19	21
Sodium dodecyl sulfate	151-21-3	Solution	I.H.E.	8	10	12	12	11
Sodium dodecyl sulfate	151-21-3	Solution	SHELL	-	24	31	34	40
Dibutyltin	683-18-1	Solution	TNO-CIVO	NT	NT	NT	NT	NT
Dibutyltin	683-18-1	Solution	I.H.E.	6	13	20	31	38
Dibutyltin	683-18-1	Solution	SHELL	-	9	11	10	21
Tributyltin	688-73-3	Solution	TNO-CIVO	7	10	16	43	58
Tributyltin	688-73-3	Solution	I.H.E.	4	17	29	57	109
Tributyltin	688-73-3	Solution	SHELL	32	40	75	95	124

Abbreviations: CASRN = Chemical Abstracts Service Registry Number; NT = Not Tested; TNO = Institute CIVO-Toxicology and Nutrition; I.H.E. = Institute for Hygiene and Epidemiology; Shell = Shell Oil Company

Substance	Mean Corneal Opacity - Minutes					Mean Corneal Swelling (%) - Minutes			
	30	75	120	180	240	30	75	120	180
Acetic acid	1.8	2.0	2.0	2.0	2.0	2.0	2.0	Severe	Severe
Acetic acid	1.6	-	-	-	1.4	1.6	3.0	Severe	
Acetic acid	-	-	-	-	-	-	2.0	Severe	
Brij 35	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Nonsevere	Nonsevere
Brij 35	0.0	-	-	-	0.0	3.0	1.6	Severe	
Brij 35	-	-	-	-	-	-	0.0	Nonsevere	
Benzalkonium chloride	3.0	3.0	3.0	3.0	3.0	3.0	3.0	Severe	Severe
Benzalkonium chloride	1.2	-	-	-	3.0	3.0	3.0	Severe	
Benzalkonium chloride	-	-	-	-	-	-	2.0	Severe	
Dimethyl sulfoxide	1.0	1.0	1.0	1.0	1.0	2.0	2.0	Nonsevere	Nonsevere
Dimethyl sulfoxide	0.0	-	-	-	0.0	0.0	0.0	Nonsevere	
Dimethyl sulfoxide	-	-	-	-	-	-	2.0	Nonsevere	
Sodium fluorecein	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Nonsevere	Nonsevere
Sodium fluorecein	0.0	-	-	-	0.0	0.0	0.0	Nonsevere	
Sodium fluorecein	-	-	-	-	-	-	1.0	Nonsevere	
Glycerol	0.8	0.8	0.8	0.8	0.8	1.0	1.0	Nonsevere	Nonsevere
Glycerol	0.0	-	-	-	0.0	0.0	0.0	Nonsevere	
Glycerol	-	-	-	-	-	-	0.0	Nonsevere	
Triacetin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Nonsevere	Nonsevere
Triacetin	0.0	-	-	-	0.0	0.0	0.0	Nonsevere	
Triacetin	-	-	-	-	-	-	0.0	Nonsevere	
Mercury chloride	NM	3.0	3.0	2.7	2.0	NM	3.0	Severe	Severe
Mercury chloride	3.0	-	-	-	2.8	1.0	2.0	Severe	
Mercury chloride	NT	NT	NT	NT	NT	NT	NT	NT	
Silver nitrate	1.0	1.0	1.0	1.5	1.5	1.0	1.0	Nonsevere	Nonsevere
Silver nitrate	2.0	-	-	-	2.0	0.0	0.0	Nonsevere	
Silver nitrate	-	-	-	-	-	-	2.0	Nonsevere	
Sodium hydroxide	3.0	3.0	3.0	3.0	3.0	2.0	3.0	Severe	Severe
Sodium hydroxide	3.0	-	-	-	3.0	3.0	3.0	Severe	
Sodium hydroxide	-	-	-	-	-	-	3.0	Severe	
Toluene	1.2	1.2	1.2	1.2	1.2	2.0	2.2	Nonsevere	Nonsevere
Toluene	0.0	-	-	-	0.0	1.8	2.0	Nonsevere	
Toluene	-	-	-	-	-	-	1.0	Nonsevere	
Triethanolamine	0.0	0.0	0.0	0.0	0.0	0.2	0.2	Nonsevere	Nonsevere
Triethanolamine	0.0	-	-	-	0.0	0.0	0.0	Nonsevere	
Triethanolamine	-	-	-	-	-	-	0.0	Nonsevere	

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	30	75	120	180	240	30	75	120	180
n-Hexane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Nonsevere	Nonsevere
n-Hexane	0.0	-	-	-	0.0	2.0	1.0	Nonsevere	
n-Hexane	-	-	-	-	-	-	0.0	Nonsevere	
Chloroform	1.5	2.0	2.0	2.0	2.0	3.0	3.0	Severe	Severe
Chloroform	0.0	-	-	-	1.4	2.8	3.0	Severe	
Chloroform	-	-	-	-	-	-	3.0	Severe	
2-Methoxyethanol	1.0	1.5	2.0	2.0	2.0	3.0	3.0	Severe	Severe
2-Methoxyethanol	0.0	-	-	-	2.8	2.0	2.0	Severe	
2-Methoxyethanol	-	-	-	-	-	-	3.0	Severe	
Butanol	3.0	3.0	3.0	3.0	3.0	3.0	3.0	Severe	Severe
Butanol	1.0	-	-	-	2.0	2.4	3.0	Severe	
Butanol	-	-	-	-	-	-	3.0	Severe	
Acetaldehyde	1.4	1.5	1.5	1.5	1.5	2.8	2.8	Severe	Severe
Acetaldehyde	2.0	-	-	-	2.0	3.0	3.0	Severe	
Acetaldehyde	-	-	-	-	-	-	3.0	Severe	
2-Butoxyethyl acetate	0.5	0.9	0.9	0.9	0.9	2.0	2.0	Nonsevere	Nonsevere
2-Butoxyethyl acetate	1.0	-	-	-	1.0	2.0	0.0	Nonsevere	
2-Butoxyethyl acetate	-	-	-	-	-	-	2.0	Severe	
Sodium dodecyl sulfate	0.8	1.0	1.8	1.8	1.8	3.0	3.0	Severe	Severe
Sodium dodecyl sulfate	0.0	-	-	-	1.0	0.0	0.2	Nonsevere	
Sodium dodecyl sulfate	-	-	-	-	-	-	3.0	Severe	
Dibutyltin	NT	NT	NT	NT	NT	NT	NT	NT	Severe
Dibutyltin	1.0	-	-	-	1.0	1.0	2.0	Severe	
Dibutyltin	-	-	-	-	-	-	2.0	Nonsevere	
Tributyltin	2.0	2.0	2.0	2.5	2.0	3.0	3.0	Severe	Severe
Tributyltin	1.0	-	-	-	2.2	2.0	2.6	Severe	
Tributyltin	-	-	-	-	-	-	2.0	Severe	