

US EPA ARCHIVE DOCUMENT

Table 1. Background corrected concentrations of analytes detected in milk.

compounds	MCL ^a	MDL ^b ng/mL	Whole Milk ^c		whole milk ^d				2% milk ^e				1% milk ^f			
	ng/mL		% Recovery	avg	dev	avg	dev	min	max	avg	dev	min	max	avg	dev	min
acetone		0.01	NA ^g		29.42	9.83	5.28	43.45	30.50	4.98	22.61	37.43	30.96	4.60	25.64	36.88
acetonitrile		.06	90.1	5.7	7.56	4.14	1.51	13.57	8.98	3.40	4.00	12.53	7.10	3.36	4.03	12.74
methylene chloride	5	.02	116.8	48.0	0.13	.21	-0.17	0.62	0.02	0.12	-0.17	0.19	0.06	0.16	-0.10	0.26
MTBE		.01 ^h	NA ⁱ		0.01	0.01	-0.00	0.03	0.01	0.01	-0.00	0.02	0.01	0.01	-0.00	0.03
2-butanone		.03	121.3	13.3	39.85	23.57	4.00	114.63	31.74	5.82	25.54	40.53	31.33	7.29	21.32	40.87
chloroform	80 ^j	.01	130.0	22.2	7.05	14.29	0.60	64.50	6.11	4.10	1.32	14.32	2.96	2.08	1.46	6.50
benzene	5	.01	97.5	11.5	0.07	0.03	0.03	0.12	0.06	0.05	0.02	0.15	0.06	0.02	0.03	0.08
trichloroethene	5	.01	89.6	4.9	0.04	0.08	0.00	0.27	0.01	0.01	0.00	0.04	0.02	0.03	0.00	0.08
methylmethacrylate		.1	112.2	9.5	0.00	0.00	0.00	0.00	0.04	0.12	0.00	0.33	0.00	0.00	0.00	0.00
bromodichloromethane	80 ^j	.01	96.4	6.4	0.10	0.07	0.02	0.30	0.13	0.11	0.03	0.37	0.09	0.04	0.04	0.14
4-methyl-2-pentanone		.06	131.9	11.8	0.02	0.03	0.00	0.08	0.01	0.04	0.00	0.12	0.01	0.03	0.00	0.06
toluene	1000	.01	95.5	6.3	0.83	0.66	0.01	2.24	0.31	0.30	0.04	0.92	0.67	0.50	0.01	1.16
tetrachloroethene	5	.01	86.1	8.7	0.09	0.10	0.00	0.39	0.07	0.05	0.01	0.16	0.06	0.07	0.00	0.18
dibromochloromethane	80 ^j	.03	94.7	6.0	0.06	0.05	0.00	0.17	0.08	0.09	0.01	0.28	0.04	0.03	0.00	0.07
ethylbenzene	700	.02	82.9	8.3	0.13	0.12	0.00	0.47	0.05	0.06	0.01	0.16	0.13	0.10	0.02	0.26
<i>m+p</i> -xylene	10000 ^k	.01	79.6	8.0	0.24	0.23	0.01	0.75	0.08	0.11	0.02	0.33	0.27	0.25	0.01	0.56
styrene	100	.01	99.4	5.2	0.52	0.46	0.04	1.59	0.19	0.26	0.04	0.79	0.39	0.31	0.02	0.73
<i>o</i> -xylene	10000 ^k	.01	89.1	4.4	0.18	0.17	0.01	0.62	0.08	0.10	0.02	0.29	0.21	0.18	0.01	0.40
isopropylbenzene		.03	76.4	13.4	0.01	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02
bromoform	80 ^j	.06	104.1	8.3	0.02	0.03	0.00	0.11	0.02	0.04	0.00	0.10	0.02	0.02	0.00	0.05
propylbenzene		.09	79.3	12.6	0.02	0.04	-0.01	0.13	0.01	0.03	-0.01	0.06	0.03	0.03	-0.01	0.07
1,3,5-trimethylbenzene		.03	69.8	11.3	0.06	0.07	-0.01	0.25	0.03	0.05	-0.01	0.14	0.08	0.07	0.00	0.16
2-chlorotoluene		.03	85.2	11.2	0.01	0.04	0.00	0.15	0.00	0.00	0.00	0.00	0.05	0.08	0.00	0.19
4-chlorotoluene		.02	92.9	8.8	0.01	0.03	0.00	0.11	0.00	0.00	0.00	0.00	0.03	0.06	0.00	0.13
1,2,4-trimethylbenzene		.04	75.4	9.2	0.29	0.32	0.01	1.20	0.13	0.23	-0.00	0.65	0.41	0.38	0.01	0.85
<i>p</i> -isopropyltoluene		.01	72.1	28.1	8.15	10.09	0.03	28.51	2.77	4.44	0.00	11.98	1.24	1.95	0.01	4.67
1,4-dichlorobenzene	75	.03	91.4	5.8	0.68	0.88	0.02	2.85	0.44	0.82	0.01	2.21	1.64	2.21	0.01	5.39
<i>n</i> -butylbenzene		.09	72.4	13.0	-0.01	0.03	-0.03	0.06	-0.02	0.02	-0.03	0.01	0.02	0.04	-0.01	0.08
1,2-dichlorobenzene		.01	90.9	6.1	0.03	0.04	0.00	0.12	0.03	0.05	0.00	0.14	0.04	0.04	0.00	0.09
naphthalene		.03	89.7	7.8	0.44	0.42	0.02	1.57	0.26	0.40	0.02	1.11	0.82	0.64	0.12	1.67
2-methylnaphthalene		.1	85.6	11.5	0.35	0.27	-0.02	1.12	0.22	0.22	0.04	0.69	0.52	0.54	0.03	1.39
1-methylnaphthalene		.2	76.2	10.2	0.24	0.19	-0.02	0.86	0.15	0.12	0.01	0.34	0.23	0.21	0.02	0.55

^a The MCL are taken from <http://www.epa.gov/safewater/mcl.html>

^b The MDL values were determined by 8 replicate analyses of 10, 1.0, 0.2, and 0.04 ng/mL milk samples. The MDL values were determined as 3 times the standard deviation of replicate runs using the concentrations that were approximately 3 times the resultant MDL. MDL results that were less than 0.01 are listed as 0.01.

^c Recoveries are the surrogate corrected results compared to the known amount (10 ng/mL whole milk). Recoveries are the average of 5 replicate analyses of 25 mL aliquots. One standard deviation of the average is also presented.

^d Whole milk population was 19 samples from different containers.

^e 2% milk population was 8 samples from different containers.

^f 1% milk population was 5 samples from different containers.

^g Not available. Calculation of acetone performance at the concentration used for this evaluation could not be done due to the elevated concentration already in milk.

^h Estimated value.

ⁱ MTBE was not in the original analyte mix. This analyte was added later when presence detected.

^j This MCL is for sum of trihalomethanes.

^k The MCL is for sum of xylenes.