

CONSUMER REPORTS TEST RESULTS FOR 4-MEL IN SOFT DRINKS

Consumer Reports purchased popular brands of soft drinks that had caramel color listed as an ingredient on their label (except for Sprite, which was tested as a control). In two test periods, we tested a total of 110 samples of 12 brands from multiple lots. The samples were purchased from grocery stores in California and the New York metropolitan region from April 2013 to December 2013. Consumer Reports partnered with the Johns Hopkins Center for a Livable Future (CLF) to conduct the testing and risk assessment. We used two independent laboratories to perform the analysis of 4-Mel in soft drink samples using High-Performance Liquid Chromatography coupled with Tandem Mass Spectrometry (HPLC-MS/MS).

For our initial test (April 2013 to September 2013), we tested samples from two lots of each brand from both locations and from a third if there was more than a 20 percent variation in 4-Mel levels. Based on initial results, new samples of Pepsi One and Malta Goya were purchased representing a total of 11 additional lots, from California, and tested to confirm the earlier findings. Finally, in December 2013 we purchased and tested samples from both California and the New York metropolitan region of those brands where there were any results above 29 micrograms per can or bottle in our initial tests of products from either location. Twenty-nine micrograms is California's Proposition 65 "safe harbor" level for 4-Mel exposure in a day. Products sold in California that exceed that level of daily exposure are required to carry a health warning label. While we can't say that the products purchased in California that exceeded 29 micrograms in our tests violate Proposition 65, we believe that these levels are too high. Those brands tested in December were: regular Pepsi, Diet Pepsi, Pepsi One, Malta Goya, and 365 Everyday Value Dr. Snap regular.

Within each product, results are listed in order of date purchased.

BRAND NAME	STORE STATE	4-Mel Conc (ug/L)	4-Mel Conc.* (ug/serving)
365 EVERYDAY VALUE Dr. Snap Regular (Whole Foods)	NY	157	55.7
	NJ	163	57.9
	NJ	152	54.0
	CA	27.6	9.8
	CA	30.8	10.9
	CA	30.4	10.8
	NY	27.2	9.7
	NY	29.3	10.4
	NY	27.3	9.7
	CA	29.7	10.5
	CA	28.4	10.1
CA	30.5	10.8	
A&W Root Beer Regular	CA	69.8	24.8
	CA	66.6	23.6
	NY	64.4	22.9
	NY	59.2	21.0
BRISK Lemon Iced Tea	CA	43.8	15.5
	CA	48.2	17.1
	NY	47.4	16.8
	NY	46.6	16.5
COCA COLA Diet Coke	CA	9.0	3.2
	CA	10.0	3.6
	NY	10.4	3.7
	NY	10.0	3.6
COCA COLA Regular	CA	12.6	4.5
	CA	11.6	4.1
	NY	10.9	3.9
	NY	11.7	4.2
COCA COLA Zero	CA	11.9	4.2
	CA	9.7	3.5
	NY	9.9	3.5
	NY	9.5	3.4
DR. PEPPER Regular	CA	30.0	10.7
	CA	26.8	9.5
	NY	26.2	9.3
	NY	28.8	10.2
GOYA Malta	NY	956	339
	NY	1,004	356
	NY	936	332
	CA	642	228
	CA	1,040	369
	CA	846	300
	CA	1,104	392
	CA	1096	389
	CA	1,104	392
	CA	1,044	371
	CA	1,068	379
	NY	872	310
	NY	855	304
	NY	872	310
	CA	842	299
CA	939	333	
PEPSI Diet	CA	70.2	24.9
	CA	80.6	28.6
	NY	542	192
	NY	452	160
	NY	550	195
	CA	107	38.0
	NY	100	35.5
	NY	86.5	30.7
	NY	96.4	34.2
	CA	75.8	26.9
	CA	72.4	25.7
CA	64.5	22.9	
PEPSI One	CA	125	44.4
	CA	128	45.4
	CA	124	44.0
	NY	458	163
	NY	442	157
	CT	750	266
	CA	115	40.8
	CA	138	49.0
	CA	118	41.9
	CA	121	43.0
	CA	112	39.8
	CA	121	43.0
	NY	450	160
	CA	112	39.8
	CA	103	36.6
	CA	119	42.2
	NJ	444	158
NJ	465	165	
PEPSI Regular	CA	80.8	28.7
	CA	47.0	16.7
	CA	81.6	29.0
	NY	408	145
	NY	510	181
	NY	556	197
	NY	82.8	29.4
	NY	94.1	33.4
	NY	96.5	34.3
	CA	71.7	25.5
	CA	84.1	29.9
CA	90.0	32.0	
SPRITE Lemon-Lime Regular	CA	< LOD**	
	CA	< LOD**	
	NY	< LOQ***	
	NY	< LOQ***	

* The 4-Mel Conc.(ug/serving) = 4-Mel Conc.(ug/L) x 0.355 L/Serving (of 12 oz can or bottle used by manufacturer)

** LOD = Limit of Detection

*** LOQ = Limit of Quantification