

CFSAN/Office of Regulatory Science  
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## Survey Data on Lead in Women's and Children's Vitamins

In early 2007, FDA became aware of reports of elevated lead levels in certain vitamins, which became an issue of concern to FDA, Congress, and the public. This survey was conducted to determine the content of lead (Pb) in vitamins labeled for women and children. The Pb content of 324 multivitamin-mineral products purchased over the Internet was determined using microwave assisted nitric acid digestion and inductively coupled plasma mass spectrometry.<sup>1</sup> Cryogenic grinding was used to composite soft samples such as oil filled capsules and candy-like products such as gummies and jelly beans. The median and maximum mass fractions were 0.160 and 2.40 mg/kg, respectively. Only four samples exceeded 1 mg/kg.

Estimates of Pb exposures from consumption of products were derived by multiplying the maximum recommended daily serving provided by the label instructions by the Pb mass fractions (i.e., concentrations) determined in this study. The overall median value for Pb exposure was 0.576 µg/day. Five samples would have provided exposures that exceeded 4 µg/day, the highest being 8.97 µg/day. The highest exposure estimate for children's vitamins was 2.88 µg/day. Estimates of exposures were assessed with respect to safe/tolerable exposure levels that have been developed for particular age and sex groups. These safe/tolerable exposure levels are referred to as the provisional total tolerable intake levels (PTTI)<sup>2</sup>.

Estimates of Pb exposures for all products were below the PTTI levels for the at-risk population groups of children, pregnant and lactating women and adult women. Table 1 lists the PTTI levels and summarizes results for mass fraction and estimated exposure by population group. Median and maximum values were used instead of mean and standard deviation due to the skewed distribution of results toward lower mass fraction and exposure as seen in Figures 1 and 2. Table 2 provides a complete listing of Pb mass fractions and estimated Pb exposure values for the samples.

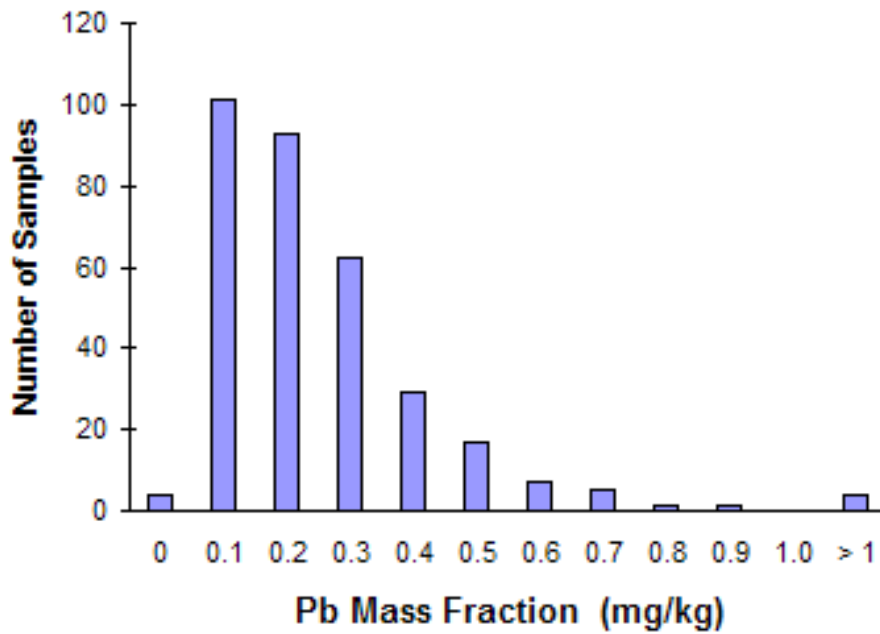
**Table 1. Summary of Pb Results**

Population Group	PTTI	Estimated	Estimated	Mass Fraction	Mass	n
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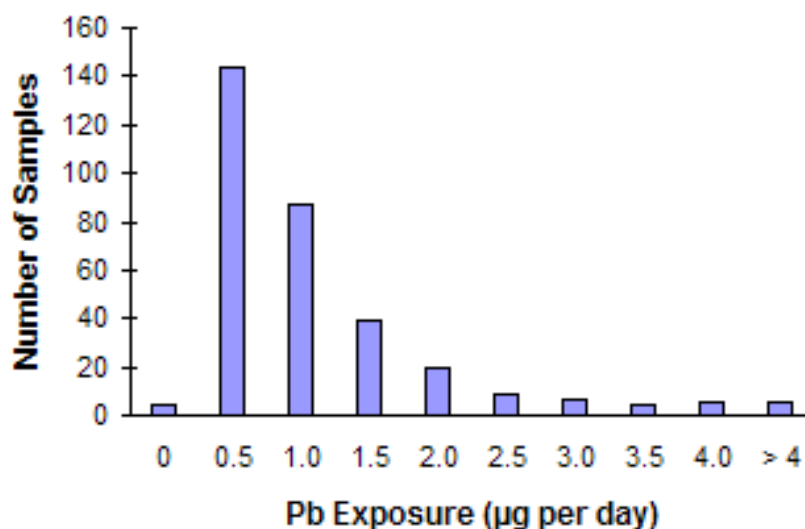
	( $\mu\text{g}$ Pb/day)	Exposure median ( $\mu\text{g}$ Pb/day)	Exposure max ( $\mu\text{g}$ Pb/day)	* median (mg Pb/kg)	Fraction * max (mg Pb/kg)	
Young children (0-6 yea	6	0.123	2.88	0.0352	0.395	101
Older children (7+ years)	15	0.356	1.78	0.146	0.623	23
Pregnant or lactating women	25	0.845	8.97	0.220	2.40	75
Adult women	75	0.842	4.92	0.221	1.20	125

\* i.e., concentration

**Figure 1.** Frequency Distribution of Pb Mass Fractions



**Figure 2.** Frequency Distribution of Estimated Pb Exposures



**Table 2. Sample Results Sorted by Population Group and Decreasing Estimated Exposure**

Product	Form	Avg. Pb Mass Fraction, mg Pb/kg	Estimated Exposure µg Pb/day	Population Assessment Group
21st Century Mega Multi For Women	Tablet/Capsule	0.162	0.578	Adult women
21st Century One Daily Women's	Tablet/Capsule	0.141	0.238	Adult women
A to Z Naturals Kitties for Kids	Tablet/Capsule	0.0356	0.116	Young children (0-6 years)
A to Z Naturals Prep For Baby	Tablet/Capsule	0.103	0.682	Pregnant and lactating women
A to Z Naturals Womenwise Multi	Tablet/Capsule	0.124	0.646	Adult women
A to Z Naturals Wow! PreNatal	Tablet/Capsule	0.622	5.52	Pregnant and lactating women
A to Z Naturals Wow! Women's Multi	Tablet/Capsule	0.262	1.29	Adult women
oman's Multi	Tablet/Capsule	0.217	1.13	Adult women
After Baby Boost 1	Tablet/Capsule	2.40	8.97	Pregnant and lactating women
After Baby Boost 2	Tablet/Capsule	ND	---	Pregnant and lactating women
After Baby Boost 3	Tablet/Capsule	0.448	1.42	Pregnant and lactating women
All One Kids	Powder	0.0627	0.470	Young children (0-6 years)
Apex FIT Multivitamin Women's	Tablet/Capsule	1.16	1.91	Adult women
Astra-Vites	Tablet/Capsule	0.0140	0.0334	Young children (0-6 years)
Benny Bears	Tablet/Capsule	0.0397	0.0683	Young children (0-6 years)
Biovaye	Tablet/Capsule	0.337	0.449	Adult women
Bronson Laboratories Performance Edge	Tablet/Capsule	0.363	2.18	Adult women
Buried Treasure Prenatal Plus DHA Complete	Liquid	0.112	3.76	Pregnant and lactating women
Buried Treasure Women's Formula	Liquid	0.0655	2.24	Adult women
Carlson for Kids	Tablet/Capsule	0.0773	0.150	Young children (0-6 years)
Carlson Prenatal	Tablet/Capsule	0.214	1.47	Pregnant and lactating women
Carol Bond Women's Choice Prenatal	Tablet/Capsule	0.392	2.24	Pregnant and lactating women
Centrum Kids	Tablet/Capsule	0.138	0.250	Young children (0-6 years)
Chewable Maxi Health	Tablet/Capsule	0.0204	0.131	Young children (0-6 years)
Chewy Bears Multi-vitamin	Candy-like	0.0561	0.166	Young children (0-6 years)

Chewy Sour Worms	Candy-like	0.0211	0.196	Young children (0-6 years)
ChildLife Nutrition For Kids	Liquid	0.0059	0.100	Young children (0-6 years)
Clinical Nutrients for Female Teens	Tablet/Capsule	0.177	1.14	Older children (7+ years)
Clinical Nutrients For Male Teens	Tablet/Capsule	0.179	1.07	Older children (7+ years)
Clinical Nutrients For Women	Tablet/Capsule	0.146	0.901	Adult women
Clinical Nutrients Prenatal Formula	Tablet/Capsule	0.169	1.39	Pregnant and lactating women
Clinicians Choice Chewable Daily Multivitamins	Tablet/Capsule	0.174	0.525	Young children (0-6 years)
Clinicians Choice Prenatal Complete	Tablet/Capsule	0.220	1.15	Pregnant and lactating women
Clinicians Choice Women's AM Multivitamins	Tablet/Capsule	0.420	0.842	Adult women
Clinicians Choice Women's Health Basics	Tablet/Capsule	0.174	0.908	Adult women
Clinicians Choice Women's PM Multivitamins	Tablet/Capsule	0.257	0.372	Adult women
Complete Children's Chewable	Tablet/Capsule	0.0272	0.0552	Young children (0-6 years)
Country Life Maxine A Daily Multiple for Women (Iron-Free)	Tablet/Capsule	0.156	0.582	Adult women
Country Life Maxine Daily Multiple for Women	Tablet/Capsule	0.207	0.781	Adult women
Country Life Maxine Multi-Vitamin & Mineral	Tablet/Capsule	0.151	0.574	Adult women
Country Life Tall Tree	Tablet/Capsule	0.0549	0.109	Young children (0-6 years)
Daily Foods Baby & Me	Tablet/Capsule	0.248	2.37	Pregnant and lactating women
Daily Foods Women's One Daily	Tablet/Capsule	0.249	0.411	Adult women
Daily Wellness Mother's Blend	Tablet/Capsule	0.338	0.915	Pregnant and lactating women
DaVinci Laboratories Spectra Woman	Tablet/Capsule	0.319	2.91	Adult women
DaVinci Laboratories Ultimate Prenatal	Tablet/Capsule	0.369	3.16	Pregnant and lactating women
Disney Complete	Tablet/Capsule	0.252	0.342	Young children (0-6 years)
Disney Gummies	Candy-like	0.0118	0.0564	Young children (0-6 years)
Doctor's Choice For Male Teens	Tablet/Capsule	0.163	0.981	Older children (7+ years)
Doctor's Choice Prenatal Formula	Tablet/Capsule	0.165	1.37	Pregnant and lactating women
Doctor's Trust Daily One Children's Chewable	Tablet/Capsule	0.0493	0.0488	Young children (0-6 years)
Doctor's Trust Ideal Multi For Women	Tablet/Capsule	0.340	1.12	Adult women
Douglas Laboratories Ultra Fem	Tablet/Capsule	0.134	1.04	Adult women
Dynamic Health Multi for Children	Liquid	0.0453	0.525	Young children (0-6 years)
Early Promise Prenatal Multimineral	Tablet/Capsule	0.143	0.776	Pregnant and lactating women
Emer'gen-C Jr. for Kids	Powder	0.0308	0.286	Young children (0-6 years)
Emergen-C Kids Multi-Vitamin	Powder	0.0187	0.170	Young children (0-6 years)
Esteem Total Teen	Tablet/Capsule	0.435	0.871	Older children (7+ years)
Esteem Total Woman	Tablet/Capsule	0.861	3.61	Adult women
Eve	Tablet/Capsule	0.222	1.07	Adult women
Every Woman's Inner Beauty	Tablet/Capsule	0.257	0.774	Adult women
Family Value Multivitamin/Multimineral for Kid	Tablet/Capsule	0.189	0.191	Young children (0-6 years)
Family Value Multivitamin/Multimineral for Woman	Tablet/Capsule	0.121	0.126	Adult women
Feel Good Naturally Prenatal Plus	Tablet/Capsule	0.216	1.19	Pregnant and lactating women
FemOne	Tablet/Capsule	0.0158	0.0146	Adult women
FertilAid for Women	Tablet/Capsule	0.267	0.844	Adult women
Flintstones Complete	Tablet/Capsule	0.147	0.212	Young children (0-6 years)
Flintstones Complete	Tablet/Capsule	0.137	0.198	Young children (0-6 years)
Flintstones Gummies	Candy-like	0.0042	0.0167	Young children (0-6 years)
Flintstones Plus Bone Building Support	Tablet/Capsule	0.0591	0.0733	Young children (0-6 years)
Flintstones Plus Immunity Support	Tablet/Capsule	0.0114	0.0119	Young children (0-6 years)

Flintstones Sour Gummies	Candy-like	0.0181	0.0685	Young children (0-6 years)
Floradix Kinder Love Children's Multivitamin	Liquid	0.0119	0.284	Young children (0-6 years)
Food Force Women's Force	Tablet/Capsule	0.121	0.217	Adult women
FoodScience Teen's Superior	Tablet/Capsule	0.117	0.928	Older children (7+ years)
For Kids Only	Tablet/Capsule	0.0612	0.139	Young children (0-6 years)
For Women	Tablet/Capsule	0.113	0.443	Adult women
For Women Only	Tablet/Capsule	0.171	3.27	Adult women
Futurebiotics Derma Teen	Tablet/Capsule	0.130	0.272	Older children (7+ years)
Futurebiotics M. V. Teen	Tablet/Capsule	0.235	0.356	Older children (7+ years)
Futurebiotics Multivitamin Energy Plus	Tablet/Capsule	0.270	0.978	Adult women
Garden of Life Living Multi	Tablet/Capsule	0.391	3.24	Adult women
Garden of Life Living Multi Optimal	Tablet/Capsule	0.367	3.53	Adult women
GenSpec VF-1 for African American Females	Tablet/Capsule	0.562	3.40	Adult women
GenSpec VF-3 para Mujeres Hispanas	Tablet/Capsule	0.446	2.64	Adult women
GenSpec VF-5 For Caucasian Females	Tablet/Capsule	0.402	2.41	Adult women
GNC Mega Teen	Tablet/Capsule	0.168	0.339	Older children (7+ years)
GNC Soloday	Tablet/Capsule	0.414	0.615	Adult women
GNC Women's Prenatal Formula	Tablet/Capsule	0.125	0.383	Pregnant and lactating women
GNC Women's Prenatal with Iron	Tablet/Capsule	0.526	1.63	Pregnant and lactating women
GNC Women's Ultra Mega	Tablet/Capsule	0.355	1.49	Adult women
GNC Women's Ultra Mega Active	Tablet/Capsule	0.529	1.87	Adult women
GNC Women's Ultra Mega Time Release	Tablet/Capsule	0.377	1.40	Adult women
Good 'N Natural Ultra Teen	Tablet/Capsule	0.137	0.265	Older children (7+ years)
Good 'N Natural Ultra Woman	Tablet/Capsule	0.191	0.777	Adult women
Good 'N Natural Ultra Woman Iron Free	Tablet/Capsule	0.154	0.611	Adult women
Good 'N Natural Women's Exclusive Formula	Tablet/Capsule	0.160	0.554	Adult women
Greens Today Childrens Formula	Tablet/Capsule	0.0493	0.124	Young children (0-6 years)
Greens Today Energy Boosters	Tablet/Capsule	0.0967	0.480	Adult women
Gummy Bear Essentials	Candy-like	0.0137	0.130	Young children (0-6 years)
HarmonicInnerprizes Lady's PQ	Tablet/Capsule	0.465	1.40	Adult women
Health Xpress Women's Mega	Tablet/Capsule	0.221	0.722	Adult women
Herb Free Baby & Me Daily Foods	Tablet/Capsule	0.151	1.22	Pregnant and lactating women
Hero Yummi Bears	Candy-like	0.0146	0.109	Young children (0-6 years)
Innate Prenatal Trimester I & II	Tablet/Capsule	0.199	1.59	Pregnant and lactating women
Innate Women's One Daily	Tablet/Capsule	0.256	0.423	Adult women
InVite For Kids	Tablet/Capsule	0.0363	0.147	Young children (0-6 years)
Irwin Naturals Women's Living Green	Tablet/Capsule	0.165	0.933	Adult women
Jarrow Formulas	Tablet/Capsule	0.0697	0.599	Pregnant and lactating women
Jarrow Formulas KidBear Kids Multi	Tablet/Capsule	0.0310	0.124	Young children (0-6 years)
Jarrow Formulas Women's Multi	Tablet/Capsule	0.135	0.338	Adult women
Kal Enhanced Energy Teen Complete	Tablet/Capsule	0.513	1.78	Older children (7+ years)
KAL Vita Mom Advanced	Tablet/Capsule	0.191	1.83	Pregnant and lactating women
Kal Vitality For Women	Tablet/Capsule	0.288	0.899	Adult women
Kangaroo Kids Nutra Chews	Candy-like	0.0045	0.0295	Young children (0-6 years)
Karuna Maxxi-Natal	Tablet/Capsule	0.263	2.16	Pregnant and lactating women
Kiddievite	Liquid	0.0261	0.445	Young children (0-6 years)
Kids Liquid Dolphin Pals	Liquid	0.0013	0.0079	Young children (0-6 years)
Kid-Vite Chewable	Tablet/Capsule	0.0569	0.0668	Young children (0-6 years)
Kirkland Signature Chewable Children's	Tablet/Capsule	0.0999	0.214	Young children (0-6 years)
Kirkman Children's Chewable Wafers	Tablet/Capsule	0.0948	0.246	Young children (0-6 years)
Kirkman Children's Multivitamin/mineral	Tablet/Capsule	0.279	0.272	Young children (0-6 years)
Kirkman EveryDay	Tablet/Capsule	0.278	0.174	Adult women

Kordial Nutrients Pedia-vit	Liquid	0.0190	0.194	Young children (0-6 years)
Kordial Nutrients Prenatal Complete	Tablet/Capsule	0.241	0.656	Pregnant and lactating women
Lady Max	Tablet/Capsule	0.338	1.15	Adult women
Life Solutions Children's Super Multivitamins and Minerals	Liquid	0.0091	0.154	Young children (0-6 years)
Life Time Professional Pre-Natal Formula	Tablet/Capsule	0.354	2.63	Pregnant and lactating women
Lil Critters Drop Zone for Teens	Candy-like	0.0054	0.0276	Older children (7+ years)
Lil Critters Groovy Gummy Vites	Candy-like	0.0192	0.103	Young children (0-6 years)
Lil Critters Gummy Vites	Candy-like	0.0053	0.0265	Young children (0-6 years)
Lil Critters Vita Beans	Candy-like	0.0070	0.0376	Young children (0-6 years)
Liquid Health Children's Multi	Liquid	0.0041	0.126	Young children (0-6 years)
Liquid Health Women's Multi	Liquid	0.0078	0.244	Adult women
Liquimins Kids Multi	Liquid	0.0065	0.0373	Young children (0-6 years)
Longevity Women's Formula	Tablet/Capsule	0.214	1.50	Adult women
Maxi Health One Prenatal	Tablet/Capsule	0.129	0.264	Pregnant and lactating women
Maxi Prenatal	Tablet/Capsule	0.107	0.607	Pregnant and lactating women
Maxi Pre-Natal	Tablet/Capsule	0.160	1.10	Pregnant and lactating women
Maxi Teen Supreme	Tablet/Capsule	0.623	0.942	Older children (7+ years)
Maxi Teen Supreme His Multi	Tablet/Capsule	0.232	0.348	Older children (7+ years)
Metagenics Fem Prenatal	Tablet/Capsule	0.0999	0.720	Pregnant and lactating women
Michael's For Pre-Teen Boys	Tablet/Capsule	0.115	0.104	Older children (7+ years)
Michael's Pre-Teen Girls	Tablet/Capsule	0.123	0.248	Older children (7+ years)
Michael's Teen Boys	Tablet/Capsule	0.0924	0.168	Older children (7+ years)
Michael's Teen Girls	Tablet/Capsule	0.129	0.262	Older children (7+ years)
More Than A Multiple	Tablet/Capsule	0.343	1.97	Adult women
MotherNature.com Tiger Bites	Tablet/Capsule	0.0352	0.123	Young children (0-6 years)
MotherNature.com Women's Basic Multi	Tablet/Capsule	0.155	0.158	Adult women
MotherNature.com Women's Multi	Tablet/Capsule	0.204	1.01	Adult women
MultiBite plus minerals	Tablet/Capsule	0.0844	0.447	Young children (0-6 years)
My First Flintstones	Tablet/Capsule	0.0104	0.0092	Young children (0-6 years)
NatraBio Children's Multivitamin	Liquid	0.0019	0.0216	Young children (0-6 years)
Natrol Liquid Kids Companion	Liquid	ND	---	Young children (0-6 years)
Natrol My Favorite Multi For Women	Tablet/Capsule	0.180	0.761	Adult women
Natrol Prenatal Care	Tablet/Capsule	0.0515	0.164	Pregnant and lactating women
Natural Factors Children's Chewable Multivitamin	Tablet/Capsule	0.0266	0.154	Young children (0-6 years)
Natural Wealth Children's Chewable Multivitamins	Tablet/Capsule	0.0192	0.0164	Young children (0-6 years)
Natural Wealth Children's Chewable Multivitamins Plus Extra C	Tablet/Capsule	0.0097	0.0100	Young children (0-6 years)
Natural Wealth Children's Chewable Multivitamins Plus Iron	Tablet/Capsule	0.0266	0.0230	Young children (0-6 years)
Natural Wealth Prenatal	Tablet/Capsule	0.323	0.366	Pregnant and lactating women
Nature Made Multi For Her	Tablet/Capsule	0.183	0.305	Adult women
Nature Made Multi Prenatal	Tablet/Capsule	0.348	0.499	Pregnant and lactating women
Nature's Basics Prenatal Multi	Tablet/Capsule	0.101	0.673	Pregnant and lactating women
Nature's Basics Women's Multi	Tablet/Capsule	0.316	1.56	Adult women
Nature's Bounty Multi-Day Women's	Tablet/Capsule	0.246	0.427	Adult women
Nature's Bounty Prenatal	Tablet/Capsule	0.284	0.324	Pregnant and lactating women
Nature's Life Prenatal Multiple	Tablet/Capsule	0.132	0.844	Pregnant and lactating women
Nature's Plus Animal Parade	Tablet/Capsule	0.191	0.623	Young children (0-6 years)
Nature's Plus Animal Parade Gummies	Candy-like	0.0161	0.132	Young children (0-6 years)
Nature's Plus Animal Parade Shake	Powder	0.0799	2.88	Young children (0-6 years)

Nature's Plus Children's Vita Gels	Tablet/Capsule	0.0360	0.0229	Young children (0-6 years)
Nature's Plus Especially Yours	Tablet/Capsule	0.141	0.687	Adult women
Nature's Plus Prenatal	Tablet/Capsule	0.274	0.509	Pregnant and lactating women
Nature's Plus Prenatal Liquid	Liquid	0.0033	0.116	Pregnant and lactating women
Nature's Plus Source of Life Power Teen	Tablet/Capsule	0.313	0.931	Older children (7+ years)
Nature's Plus Source of Life Prenatal	Tablet/Capsule	0.418	1.39	Pregnant and lactating women
Nature's Plus Source of Life Women	Tablet/Capsule	0.231	0.980	Adult women
Nature's Plus Ultra Prenatal	Tablet/Capsule	0.135	0.641	Pregnant and lactating women
Nature's Plus Ultra Source of Life	Tablet/Capsule	0.237	1.48	Adult women
Nature's Plus Woman's nutra Packs	Tablet/Capsule	0.270	2.56	Adult women
Nature's Purest Ultra Woman	Tablet/Capsule	0.306	1.03	Adult women
Nature's Secret Morning MultiPLUS	Tablet/Capsule	0.344	2.60	Adult women
Nature's Sunshine Nature's Prenatal	Tablet/Capsule	0.0835	0.0948	Pregnant and lactating women
Nature's Way Completia Prenatal Multivitamin	Tablet/Capsule	0.128	0.792	Pregnant and lactating women
Nature's Way Prenatal Multi	Tablet/Capsule	0.215	1.02	Pregnant and lactating women
NewChapter Organics Every Woman II	Tablet/Capsule	0.181	1.29	Adult women
NewChapter Organics Every Woman's One Daily	Tablet/Capsule	0.132	0.239	Adult women
NewChapter Organics Perfect Prenatal	Tablet/Capsule	0.134	0.371	Pregnant and lactating women
NewMark Women's Synbiotic Nutrients	Tablet/Capsule	0.213	0.975	Adult women
NF Formulas Liquid Pediatric	Liquid	ND	---	Young children (0-6 years)
NF Formulas Women's Forte	Tablet/Capsule	0.213	2.44	Adult women
Now Kid Vits Berry Blast	Tablet/Capsule	0.0220	0.0779	Young children (0-6 years)
Now Prenatal Caps	Tablet/Capsule	0.278	1.50	Pregnant and lactating women
Nutraceutical Pedia Power	Tablet/Capsule	0.152	0.895	Young children (0-6 years)
NutraOrigin Nutra Mother	Tablet/Capsule	0.0932	0.950	Pregnant and lactating women
NutraOrigin Nutra Woman	Tablet/Capsule	0.0822	1.21	Adult women
NutriBalance Children's Formula	Powder	0.0197	0.0986	Young children (0-6 years)
NutriBiotic Ultimate Matrix	Tablet/Capsule	1.20	4.92	Adult women
Nutrition Now Rhino Beanie Vites	Candy-like	0.0055	0.0273	Young children (0-6 years)
Nutrition Now Zow for Teens	Candy-like	0.0073	0.0371	Older children (7+ years)
Nutri-west Pre/post Natal Minerals	Tablet/Capsule	0.145	0.768	Pregnant and lactating women
Ola Loa Kids	Powder	0.0511	0.700	Young children (0-6 years)
Olay complete multivitamin	Tablet/Capsule	0.243	0.416	Adult women
Olay daily energy pack	Tablet/Capsule	0.171	0.574	Adult women
One A Day Kids Bugs Bunny	Tablet/Capsule	0.159	0.208	Young children (0-6 years)
One A Day Kids Scooby Doo Complete	Tablet/Capsule	0.161	0.209	Young children (0-6 years)
One A Day Scooby Doo Plus Calcium	Tablet/Capsule	0.0859	0.107	Young children (0-6 years)
One A Day Women's	Tablet/Capsule	0.270	0.513	Adult women
One 'n' Only Women's Formula	Tablet/Capsule	0.446	0.766	Adult women
Only Natural For Women Only	Tablet/Capsule	0.326	0.894	Adult women
Optimal Nutrition Opti-Women	Tablet/Capsule	0.424	0.902	Adult women
Perry Prenatal	Tablet/Capsule	0.520	0.667	Pregnant and lactating women
Pharm-Max Women's Extra Formula	Tablet/Capsule	0.225	1.69	Adult women
Physio Kids Multilogics Chewable	Tablet/Capsule	0.220	0.761	Young children (0-6 years)
Pioneer Chewable Vitamin Mineral	Tablet/Capsule	0.130	1.69	Adult women
Pre Natal mini's Essentials	Tablet/Capsule	0.373	1.65	Pregnant and lactating women
Preferred Plus Women's Daily	Tablet/Capsule	0.749	1.31	Adult women
Pregnancy Plus	Tablet/Capsule	0.223	0.189	Pregnant and lactating women
Prenatal Complex	Tablet/Capsule	0.189	0.546	Pregnant and lactating women
Prenatal Superior	Tablet/Capsule	0.453	3.93	Pregnant and lactating women

Prevention Multivitamin & Mineral for Women	Tablet/Capsule	0.213	0.491	Adult women
Priority One Women's Formula	Tablet/Capsule	0.112	0.703	Adult women
Progressive Woman Prenatal Multiple	Tablet/Capsule	0.190	0.505	Pregnant and lactating women
Pure Encapsulations PediaNutrients	Tablet/Capsule	0.115	0.161	Young children (0-6 years)
Pure Encapsulations PreNatal Nutrients	Tablet/Capsule	0.0995	0.224	Pregnant and lactating women
PureGels PreNatal Multi	Tablet/Capsule	0.0804	0.469	Pregnant and lactating women
Puritan's Pride Children's Multi Gummies	Candy-like	0.0126	0.0708	Young children (0-6 years)
Puritan's Pride Mega Vita Min For Teens	Tablet/Capsule	0.122	0.240	Older children (7+ years)
Puritan's Pride Mega Vita Min High Potency	Tablet/Capsule	0.205	0.832	Adult women
Puritan's Pride Mega Vita Min Iron Free	Tablet/Capsule	0.164	0.650	Adult women
Puritan's Pride Prenatal complex	Tablet/Capsule	0.274	0.750	Pregnant and lactating women
Puritan's Pride Pre-Vites	Tablet/Capsule	0.0197	0.0201	Young children (0-6 years)
Puritan's Pride Women's Exclusive Formula	Tablet/Capsule	0.134	0.464	Adult women
Rainbow Light Active Health TEEN	Tablet/Capsule	0.198	0.936	Older children (7+ years)
Rainbow Light Complete Prenatal System	Tablet/Capsule	0.440	3.76	Pregnant and lactating women
Rainbow Light Food For Women	Tablet/Capsule	0.163	0.688	Adult women
Rainbow Light Kid's One Multistars	Tablet/Capsule	0.0955	0.244	Young children (0-6 years)
Rainbow Light Nutri Stars	Tablet/Capsule	0.0558	0.261	Young children (0-6 years)
Rainbow Light NutriStart	Powder	0.107	0.232	Young children (0-6 years)
Rainbow Light Prenatal One	Tablet/Capsule	0.460	0.845	Pregnant and lactating women
Rainbow Light Women's Answer	Tablet/Capsule	0.188	1.75	Adult women
Rainbow Light Women's One	Tablet/Capsule	0.257	0.466	Adult women
Rhino Dippin' Pops	Candy-like	0.0411	0.295	Young children (0-6 years)
Rhino Gummy Bear Vitamins	Candy-like	0.0093	0.0472	Young children (0-6 years)
Rite Aid Children Chewable Vitamins with Iron	Tablet/Capsule	0.0188	0.0179	Young children (0-6 years)
Rite Aid Prenatal Tablets	Tablet/Capsule	1.13	1.31	Pregnant and lactating women
Schiff Children's Chewable	Tablet/Capsule	0.0298	0.0670	Young children (0-6 years)
Schiff Children's Multivitamin Liquid	Liquid	0.0016	0.0195	Young children (0-6 years)
Scitec Nutrition Vita X for Women	Tablet/Capsule	0.262	0.885	Adult women
Sea Buddies Daily Multiple	Tablet/Capsule	0.0452	0.0796	Young children (0-6 years)
Solaray Children's Chewable	Tablet/Capsule	0.0391	0.105	Young children (0-6 years)
Solaray Pre-Natal Multi	Tablet/Capsule	0.276	1.95	Pregnant and lactating women
Solaray Provide	Tablet/Capsule	0.149	0.683	Adult women
Solaray Twice Daily Multi Energy	Tablet/Capsule	0.235	0.488	Adult women
Solgar Female Multiple	Tablet/Capsule	0.185	1.24	Adult women
Solgar Prenatal Nutrients	Tablet/Capsule	0.119	0.810	Pregnant and lactating women
Source Naturals Mega-Kid	Tablet/Capsule	0.0368	0.103	Young children (0-6 years)
Source Naturals Mother's Choice Tablets	Tablet/Capsule	0.130	0.924	Pregnant and lactating women
Spider-man Complete	Tablet/Capsule	0.327	0.455	Young children (0-6 years)
Spider-man Gummies	Candy-like	0.0215	0.113	Young children (0-6 years)
Spider-man Multivitamin with Extra C	Tablet/Capsule	0.0650	0.0850	Young children (0-6 years)
Spring Valley Prenatal	Tablet/Capsule	0.485	0.591	Pregnant and lactating women
Stuart Prenatal	Tablet/Capsule	0.331	0.353	Pregnant and lactating women
Sundown Women's One Daily	Tablet/Capsule	0.223	0.391	Adult women
Super Nutrition Perfect Kids	Tablet/Capsule	0.395	0.522	Young children (0-6 years)
Super Nutrition Prenatal Blend	Tablet/Capsule	0.152	1.34	Pregnant and lactating women
Super Nutrition Simply One Prenatal	Tablet/Capsule	0.306	0.638	Pregnant and lactating women
Super Nutrition Simply One Women	Tablet/Capsule	0.167	0.344	Adult women
Super Nutrition Women's Blend	Tablet/Capsule	0.453	4.58	Adult women
Superior Multi Age	Powder	0.235	2.24	Young children (0-6 years)



Swanson Women's Multi	Tablet/Capsule	0.299	0.753	Adult women
The Vitamin Shoppe Liquid Children's Multi	Liquid	0.0069	0.119	Young children (0-6 years)
The Vitamin Shoppe Liquid Multi	Liquid	0.0183	0.604	Adult women
The Vitamin Shoppe Ultimate Woman	Tablet/Capsule	0.156	0.640	Adult women
The Vitamin Shoppe Ultimate Woman No Iron	Tablet/Capsule	0.121	0.483	Adult women
Thompson Multi Formula for Women	Tablet/Capsule	0.359	0.511	Adult women
Thompson Prenatal formula	Tablet/Capsule	0.363	0.633	Pregnant and lactating women
Thompson Teenplex	Tablet/Capsule	0.146	0.500	Older children (7+ years)
True Fit Women's Immune System Boost	Tablet/Capsule	0.288	1.13	Adult women
True Fit Women's Joint Relief	Tablet/Capsule	0.186	0.666	Adult women
True Fit Women's Weight Management	Tablet/Capsule	0.197	0.688	Adult women
Twinlab Infant Care	Liquid	ND	---	Young children (0-6 years)
Twinlab Prenatal Care	Tablet/Capsule	0.219	0.578	Pregnant and lactating women
Twinlab Women's Ultra Daily	Tablet/Capsule	0.180	0.830	Adult women
Tyler Prenatal	Tablet/Capsule	0.211	1.92	Pregnant and lactating women
Uno Diario Mujeres	Tablet/Capsule	0.650	1.05	Adult women
Uno Diario Ninos	Tablet/Capsule	0.0130	0.0114	Young children (0-6 years)
Uno Diario Prenatal	Tablet/Capsule	0.499	1.60	Pregnant and lactating women
Vaxa Buddies	Tablet/Capsule	0.143	0.215	Young children (0-6 years)
Vegan Prenatal	Tablet/Capsule	0.630	1.03	Pregnant and lactating women
VegLife Vegan Kids Multiple	Tablet/Capsule	0.0594	0.153	Young children (0-6 years)
Viactiv Flavor Glides	Tablet/Capsule	0.158	0.239	Adult women
Viactiv Multivitamin Milk Chocolate	Candy-like	0.0149	0.0847	Adult women
Vitabase Woman's Multi	Liquid	0.0066	0.209	Adult women
Vita-Big-Kids	Tablet/Capsule	0.168	0.557	Young children (0-6 years)
Vita-Kids	Tablet/Capsule	0.0399	0.145	Young children (0-6 years)
Vitamin Power Pre-natal formula	Tablet/Capsule	0.433	0.467	Pregnant and lactating women
Vitamin Source Prenatal Complete	Tablet/Capsule	0.528	4.73	Pregnant and lactating women
Vitamin World Animal Chews	Tablet/Capsule	0.0518	0.118	Young children (0-6 years)
Vitamin World Children's Multi Gummies	Candy-like	0.0198	0.102	Young children (0-6 years)
Vitamin World Mega Vita Min For Women	Tablet/Capsule	0.225	0.918	Adult women
Vitamin World Mega Vita Min For Women Iron Free	Tablet/Capsule	0.136	0.541	Adult women
Vitamin World Mega Vita-Min	Tablet/Capsule	0.156	0.286	Adult women
Vitamin World Prenatal Vitamins	Tablet/Capsule	0.282	0.406	Pregnant and lactating women
VitaminLab Active Woman's Multi	Tablet/Capsule	0.133	0.682	Adult women
Vitanica Maternal Symmetry	Tablet/Capsule	0.247	1.50	Pregnant and lactating women
Vitanica Women's Symetry	Tablet/Capsule	0.122	0.800	Older children (7+ years)
VitaSpecifix Women's Complete	Tablet/Capsule	0.242	0.830	Adult women
Vita-vitamin Prenatal Formulation	Tablet/Capsule	0.263	1.63	Pregnant and lactating women
Vitomegawomen	Tablet/Capsule	0.197	0.642	Adult women
Whole Source Complete formula For Women	Tablet/Capsule	0.569	1.81	Adult women
Wild Vites Children's Multi	Tablet/Capsule	0.0248	0.0494	Young children (0-6 years)
Windmill Bite-A-Mins	Tablet/Capsule	0.0092	0.0079	Young children (0-6 years)
Women's DailyFoods	Tablet/Capsule	0.261	1.30	Adult women
Women's Fitness FTW Menstrual Pak	Tablet/Capsule	0.0727	1.07	Adult women
Women's Fitness FTW Pak	Tablet/Capsule	0.0652	0.728	Adult women
Women's Maintenance AM	Tablet/Capsule	0.241	1.78	Adult women
Women's Maintenance AM without Iron	Tablet/Capsule	0.233	1.69	Adult women
Women's One Daily	Tablet/Capsule	0.611	1.21	Adult women
Women's Plus MultiStart	Tablet/Capsule	0.222	2.00	Adult women

Women's Superior	Tablet/Capsule	0.316	2.88	Adult women
Women's Twice Daily Essential Packets	Tablet/Capsule	0.0801	1.08	Adult women
Wonder Laboratories Formula Nineteen	Tablet/Capsule	0.0708	0.535	Young children (0-6 years)

### Notes:

1. Average Pb mass fraction (concentration) based on replicate determinations (n = 2 to 7) of sample composite. ND: Not detected (below limit of detection of 0.0011 mg/kg and 0.0027 mg/kg assuming a 1 g and 0.4 g analytical portion for liquid and dry solid matrices, respectively).
2. Estimated maximum daily Pb exposure from consumption of non-liquid product = [(average Pb mass fraction found, mg Pb/kg) x (unit weight of product in kg (powder = 1)) x (maximum recommended daily serving in quantity/day)]. Estimated maximum daily Pb exposure from consumption of liquid product = [(average Pb mass fraction found, mg Pb/kg) x (liquid density in kg/L) x (maximum recommended daily serving in L/day)].
3. Assignment of population assessment group based on product description, label information and instructions for use.

### References:

1. <sup>1</sup>Mindak, W. R., Cheng, J., Canas, B. J., Bolger, P. M. Lead in women's and children's vitamins. *J. Agric. Food Chem.* **2008**, 56, 6892-6896.
2. <sup>2</sup>Carrington, C. D., Bolger, P. M. An assessment of the hazards of lead in food. *Regul Toxicol Pharmacol* **1992**, 16, 265-272.