WASHINGTON — Citing research suggesting that diet soft drinks and other artificially sweetened products actually contribute to weight gain, a new advocacy group is asking federal regulators to investigate whether manufacturers including Coca-Cola and PepsiCo have engaged in false or misleading advertising.

The California-based group, U.S. Right to Know, plans to file citizen petitions Thursday calling on the U.S. Food and Drug Administration and the Federal Trade Commission to stop those companies from branding artificially sweetened products with the word “diet.” McClatchy obtained copies of the petitions.

“Consumers are using products — Diet Coke and Diet Pepsi — that are advertised to make us think they assist in weight loss, when in fact ample scientific evidence suggests that this is not true, and the opposite may well be true,” says the petition to the Food and Drug Administration.

The American Beverage Association, speaking for the Coca-Cola Co., PepsiCo Inc. and other soft-drink makers, strongly disputed the assertions in the petition. It said numerous studies showed “that diet beverages are an effective tool as part of an overall weight management plan.”

Only last fall, the beverage association, Coca-Cola, PepsiCo and the Dr Pepper Snapple Group joined in an alliance with the Bill, Hillary and Chelsea Clinton Foundation for a program to fight obesity by decreasing beverage calories in the American diet. As part of the effort, the soft drink makers agreed to step up the sales of lower-calorie drinks.

The petitions to be filed Thursday call for sweeping inquiries into the marketing of products that contain any artificial sweeteners, not just those with the most popular sugar substitute, aspartame, which is used in more than 5,000 products.

Diet Coke and Diet Pepsi contain aspartame, which has been mainly sold under the brand name NutraSweet and is consumed worldwide. Last year, Diet Coke and Diet Pepsi ranked third and seventh, respectively, in U.S. carbonated soft-drink sales, according to Beverage Digest.

Safety controversies have clouded the use of a number of artificial sweeteners for decades, especially NutraSweet and its predecessor, saccharin. But Gary Ruskin, Right to Know’s executive director and a longtime associate of consumer advocate Ralph Nader, said he thought his group was the first to call for investigations into possible deceptive marketing.

It’s unclear whether conflicting research on the sweeteners’ effect on weight is sufficiently settled for the regulators to take action.

The petitions point to a number of studies in recent years that have challenged the belief that ingesting noncaloric sweeteners helps with weight loss.

Among them:
— A 2010 review of scientific literature, published in the Yale Journal of Biology and Medicine, that concluded “research studies suggest that artificial sweeteners may contribute to weight gain.”
— A 2010 review in the International Journal of Pediatric Obesity that found large epidemiological studies “support the existence of an association between artificially sweetened beverage consumption and weight gain in children.”
— A nationwide study, called Growing Up Today, of more than 10,000 children ages 9 to 14 that found that, for boys, intakes of diet soda “were significantly associated with weight gains.”

Also of particular note is an Israeli study published last fall in the journal Nature. It found that mice given the three most popular sweeteners developed bacterial changes in their guts that caused glucose intolerance, which in humans raises the risk of diabetes.

The researchers at the Weizmann Institute of Science in Rehovot, Israel, found similar effects in a number of people who ate artificially sweetened foods for a week.

James O. Hill, executive director of the University of Colorado Anschutz Health and Wellness Center, said he accepted the findings in the mice portion of the study but disputed the methodologies of the one-week human trial.

“When it comes to weight, I am absolutely convinced that there’s no way they (artificial sweeteners) are causing weight gain,” he said in a phone interview. “Drinking diet sodas or using noncaloric sweeteners, in my opinion based on my review of the literature and my research, is not something people should worry about.”

Hill acknowledged receiving hundreds of thousands of dollars from the American Beverage Association to finance a controlled study that found people who drank diet sodas lost more weight on a managed diet than those who drank water, but he said the industry group had no role in the study design.

Berna Magnuson, a spokeswoman for the international industry’s Calorie Control Council, contended that the Israeli study’s conclusion was “inappropriate and unjustified.”

Right to Know’s Ruskin, in its petition, acknowledged the conflicting research results, but cited evidence that “industry-funded studies in biomedical research are less trustworthy than those funded independently.”

Neither the Food and Drug Administration, which regulates food labeling, nor the Trade Commission, which polices advertising claims, would comment on the petitions.

However, trade commission spokesman Peter Kaplan said the agency “is vigilant in combating deceptive advertising, and deceptive health claims in particular are a priority of the agency.”

The agency’s 32-year-old advertising standard requires advertisers to have “a reasonable basis” to substantiate their claims or implied claims.

The petition to the FDA could thrust the agency back into one of the bigger controversies in its decades of food safety regulation: its decisions in the early 1980s to approve the use of aspartame, first as a food additive and then in diet soft drinks.

The FDA’s Public Board of Inquiry had voted 2-1 to keep aspartame off the market on the grounds that it had caused brain cancer in laboratory rats.

However, President Ronald Reagan’s choice to serve as food and drug commissioner, Arthur Hull Hayes, used his authority to overturn the board, handing a bonanza to the company that patented the product, the Chicago-based G.D. Searle Co. There’s long been speculation that a pivotal player in the decision was Searle’s chairman at the time, Donald H. Rumsfeld, who served as U.S. defense secretary under President Gerald Ford and again under President George W. Bush, overseeing U.S. troops during the recent wars in Iraq and Afghanistan. Searle sold its NutraSweet subsidiary in 1958 to Monsanto, which later sold it to a Boston private equity company.

Despite a host of research studies and the publication of several books linking aspartame to health problems ranging from cancers to neurological ailments, the FDA has stood by its position that the sweetener is safe, except for people who suffer from a rare disease known as phenylketonuria, a developmental illness.

Respond to one of the following prompts. Use the a separate sheet of paper.

1. Do you think the name of ‘diet’ soda should change? Explain using details from the article.
2. Do you drink soda? Does this article change your opinions about soda? Explain.
3. Select a word, phrase, sentence, or paragraph and respond to it.