

# Is Amazon a ‘Top Seller’ of Fraudulent Supplements?

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✓ Fact Checked

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## STORY AT-A-GLANCE

- › Amazon is the largest retailer of dietary supplements, with more than \$10 billion in annual sales
- › Independent testing conducted by NOW Foods revealed many supplements sold on Amazon are “subpar quality”
- › In one example, nearly all of the 400-mg dry capsule CoQ10 tested contained much less of the active ingredient than advertised on the label – and in some cases, none at all
- › NOW Foods has tested 175 supplement products sold on Amazon, finding not only problems with potency but also with adulteration and contamination
- › Even after being notified, both Amazon and the FDA continue to allow the sale of supplements that in some cases contain none of the active ingredients listed on their labels

An estimated 77% of U.S. adults take dietary supplements, according to the Council for Responsible Nutrition,<sup>1</sup> most commonly in the hopes of “improving” or “maintaining” their overall health.<sup>2</sup> When it comes to selling dietary supplements, Amazon is the leading player, with more than \$10 billion in annual sales.<sup>3</sup>

This money may be going to waste, however, as independent testing conducted by NOW Foods revealed many supplements sold on Amazon are “subpar quality.”<sup>4</sup>

“Vitamins should help people’s health and not do any harm,” Dan Richard, VP of global sales and marketing at NOW Foods, told Natural Products Insider. “We’ve seen low potencies, fraudulent labeling, high microbial contamination, high heavy metal levels, and beef gelatin capsules mislabeled as vegetarian capsules. Each of these is a problem.”<sup>5</sup>

## **Amazon Selling Supplements With Serious ‘Quality Issues’**

In full disclosure, the testing was conducted by supplement maker NOW Foods, which began the investigation in 2017 “after the company noticed its position on the online platform declining – while brands with no or low brand recognition were climbing in popularity.”<sup>6</sup>

It began with coenzyme Q10 (CoQ10), which is used by every cell in your body, especially your heart cells. Richard became suspicious when he noticed 400-milligram (mg) doses sold in dry capsule form.

“I knew that CoQ10 is too sticky to encapsulate on high-speed machines,” he told Natural Products Insider. “When I looked at the prices, which were ‘too good to be true,’ I asked our lab to test these and see if the products were legit. As I suspected, they were not.”<sup>7</sup>

Nearly all of the 400-mg dry capsule CoQ10 tested contained much less of the active ingredient than advertised on the label – and in some cases, none at all. In follow-up tests conducted in 2020, NOW used high performance liquid chromatography (HPLC) to test 10 CoQ10 brands, revealing similar results.

None of the samples tested contained the potency listed on the label. Further, five of the 10 samples had less than 20% of the labeled potency. In two of the samples, no CoQ10 was detected.<sup>8</sup>

“As a business partner of Amazon, we did report this information to them and hope they will take action,” Richard said. “Additionally, NOW has provided this information to other supplement brands, FDA, and to trade associations.”<sup>9</sup>

NOW conducted additional testing in 2022 to determine if the supplements that tested as low potency had improved. Seven out of eight brands tested still had low potency, and some were using deceptive labeling to misrepresent the contents. Richard stated again in 2022:<sup>10</sup>

*“NOW has reported these findings to Amazon directly, as we did previously, but the problem products continue to be sold, and often as a ‘Sponsored’ (paid marketing) featured products. NOW plans to send a copy of this report to Amazon, NPA trade group, FDA and FTC. Low potency brands do harm to consumers everywhere, as well as to honest businesses that make and sell quality products.”*

## **175 Supplements on Amazon Tested, Major Problems Revealed**

NOW Foods has tested 175 supplement products sold on Amazon, finding not only problems with potency but also with adulteration and contamination. Specifically:

- **Acetyl-L-carnitine** — NOW tested seven largely unknown brands, finding none met label claims and most were labeled incorrectly. According to NOW:<sup>11</sup>

*“It seems that virtually all known brands label Acetyl-L-Carnitine properly, which is “Acetyl-L-Carnitine (from Acetyl-L-Carnitine HCl)”. This is correct in that ALC is about 85% elemental & it takes 600mg of the ALC HCl form in order to make label claim of 500mg ALC.*

*Unfortunately, almost all small brands on Amazon label incorrectly in order to get the higher 500mg label claim. This is very misleading and a deceptive way to compare similar products.”*

- **Alpha lipoic acid** — Out of 13 brands tested, they combined to average 69% of the label claim. Two of the products tested contained just 5% to 8% of the potency claimed on the label.<sup>12</sup>

- **Curcumin** – NOW tested 23 product samples purchased from Amazon in June 2021. Heavy metals, including cadmium and lead, were revealed, along with adulteration with synthetic curcumin, which is derived from petrochemicals. “In total, 12 out of 23 outside products tested failed either for potency, containing synthetic curcuminoids, heavy metals or used [animal] gelatin caps instead of the claimed veggie caps.”<sup>13</sup>
- **Glutathione** – Among 19 brands tested, three failed to meet potency claims and two had issues with heavy metals.<sup>14</sup>
- **Magnesium glycinate** – NOW tested 16 samples, finding most did not include the chelated form as claimed. NOW explained:<sup>15</sup>

*“Magnesium chelates, such as magnesium bisglycinate or glycinate, have excellent water solubility and lack a laxative effect. The fully reacted chelates are better absorbed and more expensive than other forms and thus, are at risk for substitution with lower quality material, such as magnesium oxide and magnesium carbonate, simply blended with glycine.”*

## **Amazon’s Supplement Sales Through the Roof Since COVID**

The news that many supplement brands being sold on Amazon are selling subpar, misleading and potentially dangerous products comes as Amazon’s share of the market soars. No other retailers even come close to touching Amazon’s \$10 billion in annual supplement sales.

The closest competitor brings in about \$6 billion in annual sales, while a few others bring in over \$1 billion.<sup>16</sup> The COVID-19 pandemic was what drove Amazon’s breakout years in 2020 and 2021.

Daniel Harari, cofounder of ClearCut Analytics, told Natural Products Insider that the pandemic led to a “four- to five-year acceleration in a matter of months” of people transitioning from shopping in-person to shopping online. Now, Amazon accounts for up to 80% of vitamin, mineral and supplement sales.<sup>17</sup>

## Amazon Resumes Selling NAC After Year-Long Hiatus

Amazon's clout in the supplement market means that it yields incredible influence if it pulls products from its virtual "shelves." Such was the case in 2020, when the U.S. Food and Drug Administration suddenly cracked down on N-acetylcysteine (NAC). The FDA claimed it was excluded from the definition of a dietary supplement, as it was approved as a new drug in 1963,<sup>18</sup> before it was marketed as a dietary supplement or as a food.

Retailers, including Amazon, pulled supplements containing NAC from their shelves in response, as the FDA's move meant NAC could no longer legally be marketed as a supplement, even though there were no fewer than 1,170 NAC-containing products in the National Institutes of Health's Dietary Supplement Label Database at the time.<sup>19</sup>

Draft guidance released by the FDA in April 2022,<sup>20</sup> however, included verbiage suggesting the FDA would not be enforcing their policy that NAC cannot be marketed as a dietary supplement, even though it was technically still illegal to do so. In August 2022, following the FDA's release of its final guidance, Amazon "quietly notified" supplement makers that it was resuming the sale of NAC dietary supplements.<sup>21</sup>

## Multinational Corporations Are Buying Up Supplement Companies

Another reason to be very choosy about where you get your supplements is that multinational corporations — like Bayer, Nestle, Unilever, Proctor & Gamble and Clorox — are buying up supplement companies at a frenzied pace. In 2018, there were 83 such transactions. This rose to 137 in 2021.<sup>22</sup> For instance, Nestle Health Science, a division of Nestle, now owns:<sup>23</sup>

Pure Encapsulations	Douglas Foods
Garden of Life	Vital Proteins

Nuun	Wobenzym
Persona Nutrition	Genestra
Orthica	Minami
AOV	Klean Athlete
Bountiful, which owns Solgar, Osteo Bi-Flex, Puritan's Pride, Ester-C and Sundown	

“Several of these brands are higher quality supplement companies,” Alliance for Natural Health USA noted. “What will happen to them now that they are owned by mega-corporations that have not historically had core natural health principles as the foundation of their businesses? We’ve spoken to several of the largest and highest quality brands that have not been purchased; they have confirmed that larger companies have made several unsuccessful attempts to purchase them.”<sup>24</sup>

Why are there continued attempts to make supplements drugs and for mega-corporations to acquire their makers? “Where there’s money to be made, big players will want to cash in,” Alliance for Natural Health explained.<sup>25</sup> The end result for consumers could be disastrous, however, including restricted access to supplements and inferior products on the market.<sup>26</sup>

## **Will Your Access to Quality Supplements Soon Be Limited?**

It’s already apparent by NOW’s investigation that you can’t use tech companies like Amazon as a barometer of supplement quality. In the U.S., the supplement industry is viewed as largely trustworthy by the majority of adults (79%).<sup>27</sup> However, access to high-quality supplements is continually being threatened, not only by unscrupulous manufacturers, corporate mergers and acquisitions, but also by legislation.

In April 2022, Sens. Dick Durbin, D-Ill., and Mike Braun, R-Ind., introduced the Dietary Supplement Listing Act of 2022.<sup>28</sup> The Act would require supplement makers to provide

information about their products to the FDA, including (but not limited to):<sup>29</sup>

- A list of all ingredients
- An electronic copy of the label
- Allergen statements
- Health and structure/function claims

Known as mandatory product listing (MPL) for dietary supplements, supporters claim it's a way for the FDA to know what products are on the market and what ingredients they include. But opponents suggest the move, which is burdensome for small supplement companies, could ultimately give the FDA more power to ban supplements from the market.<sup>30</sup>

What's more, it's possible MPL could turn into a tool for premarket approval, which the FDA could use to keep dietary supplements off the market. Daniel Fabricant, president and CEO of the Natural Products Association (NPA), explained to Nutritional Outlook:<sup>31</sup>

*"The thing is, if the safeguards were there" – meaning language built into the bill to clearly state that the law doesn't let FDA reject any database submissions – "they would be specifically spelled out. They would say, 'Hey, nothing in this act would allow the Secretary to remove an ingredient that isn't the subject of final agency action.'*

*... That would give you a safe harbor, but we haven't seen any language here that would present that [in the current bills]."*

MPL could also bring the U.S. closer to adopting universal limits on supplement dosages and formulas – a move that would also restrict consumers' access to therapeutic levels of such products.<sup>32</sup> Meanwhile, both Amazon and the FDA continue to allow the sale of supplements that in some cases contain none of the active ingredients listed on their labels. Richard continued to Natural Products Insider:<sup>33</sup>

*"When cheating brands win sales, quality brands, of course, lose and market prices are set falsely too low, making it a challenge to maintain market share*

*with a quality product. So the brands committed to selling quality products take a financial hit, and consumers are cheated of both their money and the health benefits they think they are getting ...*

*Unfortunately, the track record of cheating brands, Amazon's ineffective quality program and FDA inaction each lead to the conclusion that cheating will continue."*

## Sources and References

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- <sup>1</sup> CRN September 30, 2019
- <sup>2</sup> JAMA Intern Med. 2013;173(5):355-361
- <sup>3, 16, 17</sup> Natural Products Insider November 8, 2022
- <sup>4, 5, 6, 7, 33</sup> Natural Products Insider January 31, 2023
- <sup>8, 9</sup> NOW February 28, 2020
- <sup>10</sup> NOW, NOW Tests CoQ10 & Quercetin Sold on Amazon
- <sup>11</sup> NOW, All Acetyl-L-Carnitine Is Not Created Equal
- <sup>12</sup> NOW, NOW Reports Testing on Brands of Alpha Lipoic Acid
- <sup>13</sup> NOW, NOW Tests Curcumin/Turmeric Extract Sold by Amazon
- <sup>14</sup> NOW, NOW Tests Glutathione Sold by Amazon
- <sup>15</sup> NOW, Magnesium Glycinate Brands on Amazon
- <sup>18</sup> New Hope Network April 27, 2022
- <sup>19</sup> Natural Products Insider August 11, 2020
- <sup>20</sup> U.S. FDA April 21, 2022
- <sup>21</sup> Natural Products Insider August 25, 2022
- <sup>22, 23, 24, 25, 26, 32</sup> Alliance for Natural Health USA November 15, 2022
- <sup>27</sup> Nutraingredients-usa.com October 22, 2021
- <sup>28, 30</sup> Natural Products Insider November 22, 2022
- <sup>29</sup> Dick Durban April 26, 2022
- <sup>31</sup> Nutritional Outlook May 31, 2022