



January 17, 2023

Consumer Reports' article, "Lead and Cadmium Could Be in Your Dark Chocolate" purports to analyze and inform consumers of lead and cadmium levels in dark chocolate. They base their article on a non-food safety standard they created and called "CR levels". In addition, they compound confusion by reporting in percents and not in ppm levels. Ironically, a hidden and misleading aspect of percents reporting is that even when a product is below the CR levels, a percent like 83% seems terrible (as it's almost 100%), but in fact 83% of a level that one is trying to stay below is a good thing.

The correct and definitive standards (which anyone selling chocolate in California must follow) became part of the California Proposition 65 body of regulations (CA Prop 65) in 2018. These standards, specifically set for chocolate and relative to cocoa content, are also known as the *As You Sow Settlement* or *2018 Settlement* standards.

Consumer Reports – Results in percent of their CR levels

- | | |
|--|--|
| Chocolove's Strong Dark Chocolate 70% Cocoa | Chocolove's Extreme Dark Chocolate 88% Cocoa |
| <ul style="list-style-type: none"> ▪ Lead = 152% ▪ Cadmium = 60% | <ul style="list-style-type: none"> ▪ Lead = 240% ▪ Cadmium = 83% |

To make sense of the CR levels, Chocolove factored CR's levels (reported as percents) to the OEHHA ppm levels that CR reports using, to arrive at test results in ppm, which can then be directly compared to the CA Prop 65 Standard for chocolate.

Chocolove's Strong Dark Chocolate 70% Cocoa – calculated test results in ppm

Lead = 0.027 ppm
 152% x 0.5 mcg (MADL for lead) = 0.76 mcg/ounce
 0.76 mcg/ounce ÷ 28.35 g/ounce = 0.027 mcg/g
 0.027 mcg/g = **0.027 ppm**

Cadmium = 0.087 ppm
 60% x 4.1 mcg (MADL for cadmium) = 2.46 mcg/ounce
 2.46 mcg/ounce ÷ 28.35 g/ounce = 0.087 mcg/g
 0.087 mcg/g = **0.087 ppm**

Chocolove's Extreme Dark Chocolate 88% Cocoa - calculated test results in ppm

Lead = 0.042 ppm
 240% x 0.5 mcg (MADL for lead) = 1.2 mcg/ounce
 1.2 mcg/ounce ÷ 28.35 g/ounce = 0.042 mcg/g
 0.042 mcg/g = **0.042 ppm**

Cadmium = 0.120 ppm
 83% x 4.1 mcg (MADL for cadmium) = 3.4 mcg/ounce
 3.4 mcg/ounce ÷ 28.35 g/ounce = 0.120 mcg/g
 0.120 mcg/g = **0.120 ppm**

The two Chocolove products tested by *Consumer Reports* are well below the CA legal limits. To show what percents look like in these matters and why they are not appropriate, we coupled our results with the percents to which Chocolove is in compliance with the CA Prop 65 standard limits.

| | Lead (ppm) | CA Prop 65 (2018 As You Sow) -- Lead (ppm) | % In Compliance | Cadmium (ppm) | CA Prop 65 (2018 As You Sow) -- Cadmium (ppm) | % In Compliance |
|--|------------|--|-----------------|---------------|---|-----------------|
| Chocolove's Strong Dark Chocolate 70% Cocoa | 0.027 | 0.15 | 556% | 0.087 | 0.45 | 517% |
| Chocolove's Extreme Dark Chocolate 88% Cocoa | 0.042 | 0.15 | 357% | 0.120 | 0.45 | 375% |

It would also appear from the reverse engineering of the *Consumer Reports* levels to ppm levels that all chocolate in the CR test results comply with CA Prop 65 standards for chocolate.

Understanding that there are minerals and elements in everything we eat, Chocolove will continue to monitor and seek out improvements in chocolate production food safety. Chocolove chocolate complies with the most stringent standards set in the US and we strive for continuous improvement on this and all matters.

Simply put, Chocolove chocolate is safe to enjoy daily.