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Analyzing American Brand and Chinese Counterfeit Eyeshadows for Heavy Metals.

Counterfeit cosmetics are a large problem in the world today because they are cheap and easy to purchase. However, many are unaware of the counterfeit cosmetics' ingredients as they are not mandated to comply with the American Food and Drug administration requirements. Counterfeit cosmetics may have ill-effects on a person's body that are irreversible. This study aimed to compare three brands of American eyeshadows with their Chinese counterfeits and determine their lead, iron, copper, and arsenic concentrations. In total, there were three samples tested from each brand, making an overall total of eighteen samples. The samples were acid digested and analyzed through an Atomic Absorption Spectrometer (AAS) and Graphite Furnace Atomizer (GFA). Preliminary results showed varying amounts of iron, copper, lead, and arsenic found in some of the samples from both the American brands and their Chinese counterparts. These heavy metals can be absorbed through the skin causing effects such as nausea, anemia, nerve damage and other life-threatening events. Consumers should be more aware of these counterfeit products and the heavy metal presence that may be accidentally or intentionally added in these products and what they can do to a person's body.