

DID YOU KNOW?

Heavy metals in cosmetics may seem like a small proportion of sources that threaten human health in comparison to water, food, or air.

However, their **health toxicities** should not be discounted, as cosmetics are worn for a **prolonged period of time** and are often applied over **thin and sensitive areas** of the skin such as the lips and eye contour.

Upon application over the skin and **absorption** into the body, heavy metals are known to **bio-accumulate**, leading to toxic levels.



FUNFACT 1

Concentration of heavy metals (lead, chromium & cadmium) in lipsticks sold in Malaysia?



Heavy Metals In LIPSTICKS

Is your health at risk ?



FUNFACT 2

Health risks due to exposure of heavy metals in lipsticks?

35 YEARS

No significant non-carcinogenic health risk due to exposure of cadmium and chromium through ingestion of lipstick for 35 years of exposure.

45 LIPSTICKS

45 lipsticks were collected and categorized according to their price.

CHEAP

(category I- < RM29.99)

INTERMEDIATE

(category II- RM30 - RM59.99)

EXPENSIVE

(category III- > RM60)



HIGH LEAD

CONCENTRATION (15.44ppm)

The concentrations of these heavy metals in the lipsticks were less than the safe permissible limit of heavy metals in cosmetics, except the one **brown lipstick** manufactured in **USA**, which contained a high lead concentration (15.44 ppm) when compared to the Health Canada permissible limit (10 ppm).



FUNFACT 3

Price of lipsticks vs concentration of heavy metals?



Significant difference of **lead** content among the lipsticks in price categories I, II, and III



No significant difference of **chromium and cadmium** content among the lipsticks in price categories I, II, and III

SOURCE

Zakaria, A., & Ho, Y.B (2015). Heavy metals contamination in lipsticks and their associated health risks to lipstick consumers. *Regulatory Toxicology and Pharmacology*, 73(1), 191-195.