



Two Leading Brand Canadian Toothpaste Warnings

What to swallow?

Which fact is true?

- A tube of fluoride toothpaste contains sodium fluoride (NaF).
- The label concentration shows 0.243% w/w (0.15% w/v fluoride ion).
- The fluoride ion (F-) is the active ingredient of concern.
- 0.15% w/v of F- means that there is 0.15g of F- per 100mL of toothpaste. (100cc = 100mL)

Put another way each mL of toothpaste contains
 0.15g F- / 100mL of toothpaste = 0.0015g F-/mL of toothpaste

Convert g of F- to mg of F- using the conversion factor, 1000mg/g.
 0.0015g F-/mL of toothpaste / 1000mg/g = 1.5mg of F-/mL of toothpaste

Therefore, each mL of toothpaste contains **1.5mg of F-** as an active ingredient.

Pea-sized amount of toothpaste = 0.15g
 Toothpaste F- concentration = 1,500ppm
 1,500ppm = 1.5mg/g
 pea-sized toothpaste = 0.15g x 1.5mg F-/g = **0.225mg F-**

1 glass of water = 0.3L (300 mL)
 F- concentration = 0.7mg/L (Health Canada; Canadian Drinking Water Guidelines)
 1 glass of water = 0.3L x 0.7mg/L = **0.21mg F-**

0.225mg F- ~ 0.21mg F- is 93% the same amount of fluoride.
 Toothpaste warns, "**Do not swallow, call poison control.**"
 Water fluoridation promoters declare, "**Safe and effective.**"

