

Environmental Protection Agency (EPA)/IRIS CASRN 7440-22-4

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Recommendations on silver mineral intake

Safe Lifetime Dietary Silver Intake of 3 ppm Silver Mineral for an Adult According to the EPA:

- a. **30 ml per day for 330 years** remaining under the lifetime NAOEL reference of 10 grams.
- b. **10 ml per day for 1000 years** remaining under the lifetime LOAEL reference of 10 grams.
- c. **10 ml a day for 2500 years** remaining under the lifetime LOAEL reference dose of 25 grams.

Safe Dietary Silver Intake of 3 ppm Silver Mineral for an Adult According to the EPA

1. Taking 1.0 liters daily of 3 ppm silver for 250 years falls below LOAEL for an adult
2. Taking 2.0 liters daily of 3 ppm silver for 125 years falls below LOAEL for an adult
3. Taking 3.0 liters daily of 3 ppm silver for 70 years falls below LOAEL for an adult

Individual formulations have different inherent potentials for toxicity as it relates to their content of non-pure form of silver such as colloidal salts and proteins. Pure silver mineral is by definition non-toxic.

US EPA FQPA Food Quality Protection Act Implementation Activities Registered: Silver mineral as a broad-spectrum preservative silver mineral. EPA registration number: 3432-64.

An LD-50 test was performed in accordance with the guidelines of the Federal Hazardous Substances Act (FHSA) Regulations, 16 CFR 1500.

Pure silver mineral was given to a number of both male and female test rats. The amount of silver mineral given to the rats was 5g/kg, or the equivalent of a 200 pound man taking 192 teaspoons of silver mineral 10 ppm solution at one time.

Results: Under the conditions of the study, there was no mortality or significant evidence of toxicity observed in the rats. The test article (pure silver mineral) would not be considered toxic at a dose of 5g/kg by oral route in the rat.