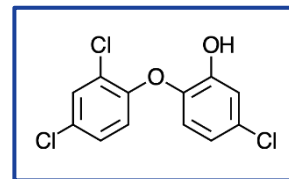


SUMMARY

Background: Triclosan is an antimicrobial agent that can be found in everyday products, including toothpaste, soaps, and fabrics. Humans are exposed to triclosan primarily via ingestion or absorption through the skin when using these products. The effects of lifetime (2-year) dermal exposure to triclosan were studied in male and female mice to identify potential toxicity or cancer-related outcomes.



Methods: Triclosan in ethanol was applied to the skin of groups of 48 male and 48 female mice 7 days per week for 2 years at doses of 1.25, 2.7, 5.8, or 12.5 milligrams (mg)/kilogram (kg) body weight/day. One group of control animals received ethanol only, and a second group of control animals was left untreated. At the end of the study, tissues from more than 40 sites from every animal were examined for signs of disease.

Results: In male and female mice administered triclosan, noncancerous tissue abnormalities, such as inflammation and ulcers of the skin, were observed at the site of application. Incidences of liver neoplasms (which can include benign or malignant growths) were increased in male mice from the 5.8 and 12.5 mg/kg/day groups. In female mice administered triclosan, higher occurrences of pancreatic neoplasms were observed in the 12.5 mg/kg/day group.

Conclusions: *The NTP four-point scale rates the level of evidence that a substance has the ability to cause cancer in laboratory animals. Under the conditions of this 2-year dermal study, there was some evidence that triclosan has the ability to cause liver cancer in male mice and equivocal (uncertain) evidence that it has the ability to cause pancreatic cancer in female mice. In addition, noncancerous tissue abnormalities (hyperplasia, inflammation, and ulceration) were observed at the site of triclosan application in male and female mice.*
