

2019 SOT Conference
Poster: Safety Assessment: Nonpharmaceutical
Wednesday March 13, 2019
9:15AM-4:30PM

Critical Review and Synthesis of Animal Toxicity Studies of Talc

Several recent reviews and risk assessments have addressed the potential for cosmetic talc to cause disease, particularly ovarian and lung cancer and mesothelioma. These studies have generally focused on epidemiology studies (including studies of industrial talc-exposed populations) that have evaluated whether talc or its potential contaminants might cause these diseases. The issue of what (if any) contaminants might be found in cosmetic talc has been the subject of intense study for decades. There has not been a recent critical integrated effort to determine whether animal studies support a potential disease link between talc and/or its contaminants and cancer. We evaluated 17 animal studies of talc, identified through a combination of literature searches and compilation of previous reviews. In addition, we synthesized data from other animal studies that evaluated whether characteristics (*e.g.*, fibrous form, length, dimensions, *etc.*) of some talc particles or contaminants might be a factor to consider in their toxicity. Our critical review of talc-specific animal studies did not support that exposure to cosmetic talc products would result in an increased risk of cancer. Analysis of animal studies that evaluated whether potential contaminants of cosmetic talc such as fibrous talc or other non-asbestiform elongate mineral fibers (regardless of dimensions) also did not support an increased risk of cancer. The animal studies support the premise that high doses of cosmetic talc and/or its contaminants could be associated with non-cancer respiratory effects, such as inflammation and fibrosis. These observed effects are consistent with the type of health effects observed in animal studies of other nuisance dusts, and human reports that have found evidence of talcosis in cosmetic talc miners and millers with high exposures.