LEAD STEARATE
(Lead Octadecanoate)

No information specifically concerning the carcinogenicity, mutagenicity, or teratogenicity of lead stearate was found. Several cases of lead intoxication from exposure to this substance have been reported (1). In a subchronic inhalation study dogs, rabbits, and guinea pigs receiving twenty 30 minute exposures at 333 mg/m^3 over 2 months exhibited weight loss, renal lesions, and enlargement and fatty degeneration of the liver (2).

Another organic lead salt, lead acetate, "is carcinogenic in rats and mice,"producing renal tumors at 0.1% in 29 month feeding study (3). Regarding human carcinogenic potential, the IARC concludes:

> "There is no evidence to suggest that exposure to lead salts causes cancer of any site in man. However, only one epidemiological study of the relationships between exposure to lead and the occurrence of cancer has been reported. It must be noted that the level of human exposure equivalent to the levels of lead acetate producing renal tumors in rats is 810 mg per day (550 mg Pb). This level appears to exceed by far the maximum tolerated dose for man" (3).

Lead acetate has also shown mutagenic potential, causing an "increased number of gap-break type aberrations" in the chromosomes of mouse leukocytes cultivated from animals fed 1% lead acetate for 2 weeks (4).

In addition, lead acetate has been demonstrated to be both teratogenic and embryotoxic (5,6). Hamsters injected intravenously with 50 mg/kg on the eighth day of gestation produced 10 live normal, 10 dead or resorbed, and 68 live abnormal offspring (5). "Intoxication with lead has long been known to reduce fertility and increase the frequency of abortions and miscarriages" (4).

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