

LD₅₀ ORAL TOXICITY TESTDATE 7.1.66MATERIAL Lead Oxide PbOPHYSICAL APPEARANCE orange powderMR-10 BK.NO. 2 PAGE 142 H.NO. 4600 T.I. Joyce LongcoreDEPT. _____ DEPT.NO. _____ ALD > 17,000 mg/kg D₂₀^o _____ pH _____Material given by stomach tube to ♂ Ch R-CD RATS in original form oras a 45%¹ () solution of () active ingredient in PEANUT OIL.
(✓) suspension (✓) original sample

Date	No. Rats Dosed	Av. Wt.	Dose mg/kg	% Sol.	Av. Dose (ml)	Av. Surv. Time (days)	Mort. Ratio	Remarks	TS
5.12	10	266	17,000	45	10.05	10	1/10	weight losses 6-11 days	NO
6.15	10	259	25,000	65	9.97	10	1/10	weight losses 5-12 days	NO

LD₅₀ = > 25,000 mg/kg or based on the Pb⁺⁺ ion the LD₅₀ is > 23,200 mg/kgConfidence Limits² = _____ mg/kg

1. gms/100 ml
2. "A Simplified Method of Evaluating Dose-Effect Experiments", by J. T. Litchfield and F. Wilcoxon, J. Pharm. Exp. Therap., 96: 99 (1949)

Clinical Signs:

Very soft feces & diarrhea containing yellowish-colored chunks which look like the compound on the day after dosing.

Chromo and ruffled fur, anorexia and few, small feces.

Pathology:

Summary: The LD_{50} for Lead Oxide (PbO , Fischer Scientific Co.) when administered orally to male Charles River-CD rats is greater than 25,000 mg/kg. Clinical signs of toxicity included soft feces and/or diarrhea containing yellow chunks which looked like the test material, beginning as soon as 3 hours after dosing and continuing up to 2 days. Anorexia; few, small feces, ruffled fur and chromo followed for 5-12 days after dosing at which time the rats began to eat again. One rat at each dose level died, both after 12 days of weight loss.

Since PbO is 92.8% Pb^{++} by weight the LD_{50} for Pb^{++} when administered as lead oxide is greater than 23,200 mg/kg.