

- 983 Vapor Toxicity of Carbon Tetrachloride Determined by Experiments on Laboratory Animals. E. M. Adams, H. C. Spencer, V. K. Rowe, D. D. McCollister, and D. D. Irish. Arch. Ind. Hyg. & Occ. Med. 6, 50-65 (July 1952).

The results of single exposures of rats to carbon tetrachloride are tabulated and graphed. The most severe single exposures without detectable adverse effect are suggested as a standard for evaluating single exposures of workmen. When animals were subjected to five-day, seven-hour exposures the maximum vapor concentrations without adverse effect were 25 ppm for the monkey, 10 ppm for the rabbit, and 5 ppm for the rat and guinea pig. In addition the following exposures caused no detect injury in rats: 400 ppm for 0.05 hour daily and 100 ppm for 0.3 hour daily. The philosophy of standards of industrial hygiene is discussed. The recommended limiting concentrations for daily exposures are 25 ppm for the maximum single determination and 10 ppm for the average.

-- Cond. from Authors' Summary

- 984 Toxicity of Ethylene Dibromide Determined on Experimental Animals. V. K. Rowe, H. C. Spencer, D. D. McCollister, R. L. Hollingsworth, and E. M. Adams. Arch. Ind. Hyg. & Occ. Med. 6, 156-173 (Aug. 1952);

The administration of single oral doses of ethylene dibromide yielded LD50's (g./kg.) for laboratory animals varying from 0.420 for female mice to 0.055 for female rabbits. Application caused pain and injury to the eye and only slight irritation of the skin except when confined. When animals were subjected to five-day, seven-hour exposures, the animals tolerated 25 ppm, but not 50 ppm. The acute toxic effects observed in rats were depression of the central nervous system, lung irritation, and injury to the liver and kidneys. The most important chronic toxic effects were lung irritation and liver injury. As tentative conclusions, it is suggested that with single human exposures the maximum intensities which will not cause adverse effects may be represented as 0.1 hour at 800 ppm, 1.0 hour at 200 ppm, and 7.0 hours at 50 ppm. For regular daily seven-hour exposures of human subjects, 25 ppm is the highest concentration that can be considered permissible. More definite conclusions must await actual experiments with human subjects. Precautions for the safe handling of ethylene dibromide are suggested.

-- Cond. from Authors' Summary

- 985 Fatal Exposure to Methylene Chloride Vapor. S. Moskowitz and H. Shapiro. Arch. Ind. Hyg. & Occ. Med. 6, 116-123 (Aug. 1952).

Four men were exposed to high concentrations of methylene chloride vapor, apparently from escape of the vapor from a still. One was found dead, and the others recovered after four days' hospitalization.