

oral LD₅₀ indicated that triphenyltin accumulated in the guinea pig. Compared with those of triethyltin, the effects of triphenyltin appeared relatively non-specific, but there was evidence of an action on the central nervous system although cerebral edema did not occur. The effects of triphenyltin were quite different from those of diphenyltin which acted mainly as an irritant. Triphenyltin did not readily penetrate unbroken skin. The use of triphenyltin as an agricultural fungicide is considered in the discussion.

- 869 The Distribution of Lead After Intravenous Injection in the Tissues of the Rabbit, and in Tun Bearing Mice. G. Causey. *Brit. J. Cancer* 19, 867-870 (Dec. 1965).

This investigation was undertaken to see if intravenous colloidal lead was tolerated by mice rabbits in doses large enough to allow for the demonstration of lead in the tissues, and then the claim that such lead is concentrated in neoplastic tissues could be substantiated at electron microscopic level. In these short-term experiments, the particulate lead appears to be concentrated in the reticulo-endothelial cells, whether fixed or free, in the liver, spleen, and bone marrow. Eight references are given. -- Public Health Eng. Absts

- 870 Biliary Excretion of Lead in the Rat. N. Castellino, P. Lamanna, and B. Grieco. *Brit. J. Ind. Med.* 23, 237-239 (July, 1966).

Studies have been made in the rat of the elimination of Pb-210 in the bile after the intravenous injection of 100 micrograms of lead. Four groups of rats were used: in two the bile was drained by cannulation of the bile duct, and in the other two the bile flow to the duodenum was interrupted by ligation or division of the bile duct. The radioactivity of the bile, of the intestinal walls, of the intestinal contents and feces was determined. The results showed that lead is eliminated from the liver mainly by the bile, thus excluding passage through the intestinal walls into the feces as important under these conditions. -- Authors' abstr

- 871 Substantiation of the Daily Average Maximum Permissible Concentration of Acrolein in the Atmosphere. M.I. Gusev, et al. *Gigiena i Sanit.* 31, No. 1, 9-13 (1966). Russian.

In albino rats, a 24-hour poisoning with acrolein vapors at a concentration of 1.52 mg./cu. m. for a period of two months produced a fall in weight, changes of conditioned reflex activity, decrease of cholinesterase activity of whole blood, a fall of coproporphyrin excretion in the urine and an increase in the number of luminescent leucocytes in the blood. Acrolein at a concentration of 0.15 mg./cu. m. caused only a rise in the number of luminescent leucocytes in the blood. The daily average maximum permissible concentration of acrolein in the atmosphere is set at a level of 0.1 mg./cu. m. -- Public Health Eng. Absts

- 872 Peripheral Neuropathy in Rats Produced by Acrylamide. Pamela M. Fullerton and J.M. Barrett. *Brit. J. Ind. Med.* 23, 210-221 (July, 1966).

Acrylamide (CH₂=CHCONH₂) has a number of commercial uses, one of which involves pumping solutions containing acrylamide into soil during mining and tunneling operations in order to render the soil waterproof. It seemed possible that under these conditions men might be seriously exposed to the substance. Tests for its toxicity to experimental animals were therefore undertaken. It was found that acrylamide produces ataxia and limb weakness in rats when given in repeated oral doses of 25 to 100 mg./kg. at various intervals or mixed with the diet in concentrations of 100 to 400 ppm. An electrophysiological and histological study of peripheral nerve has been carried out in chronically poisoned rats. In animals with severe clinical abnormalities motor nerve conduction velocity in the fibers supplying the small muscles of the hind paw was reduced to approximately 80% of the control value. Histologically, degeneration of axon cylinders and myelin sheaths was found in peripheral nerves, affecting predominantly the distal parts of longest fibers. When paralyzed animals were no longer given acrylamide, they recovered clinically, conduction velocity returned to the normal range, and there was histological evidence of regeneration of nerve fibers.

- 873 Inhalation Studies on Chloropentafluoroethane. J.W. Clayton, Jr., et al. *Am. Ind. Hyg. Assn. J.* 27, 234-238 (May-June, 1966).

Dogs, rats, mice, and rabbits were exposed to an atmosphere of 10% chloropentafluoroethane (FREON 115) for 90 exposures of six hours each. Body weight and clinical condition of rodents were unaffected. Rat and dog blood, urine analyses, and urinary fluoride analyses revealed no significant changes. Dog weight gain, temperature, respiration, and pulse were normal. Gross examination, histology, and organ weights of all species revealed no effects attributable to chloropentafluoroethane. An industrial hygienist standard of 1,000 ppm as an eight-hour time-weighted average is suggested. Six references are given. -- Authors' abstr.