

CORRELATION BETWEEN TOXICITY BY INHALATION AND PHYSICAL PROPERTIES OF BERYLLIUM OXIDE. R. H. HALL, S. LASKIN, G. SPRAGUE and B. H. BROWN, *Federation Proc.* **8**:299, 1949.

The toxicity of inhaled beryllium oxide appears to depend on the physical properties of the material, which, in turn, are related to the method of preparation. The processes currently employed for the production of beryllium oxide involve calcining a beryllium salt at high temperatures. Dogs, guinea pigs, rabbits and rats were exposed six hours daily for 12 to 15 days to an atmosphere containing approximately 85 mg. per cubic meter of beryllium oxide aerosol. Even at this relatively high concentration, one grade of beryllium oxide appeared to be virtually nontoxic. A second grade induced definite signs of toxicity: two of 20 rats died during the exposure period, while three of five rats, held for observation after exposure, showed a marked increase in leukocytes due to an absolute increase of neutrophils and lymphocytes. Dogs and rats exposed to an aerosol of beryllium oxide produced by calcining beryllium nitrate at 400 C. exhibited loss of weight. One of the two dogs showed a significant reduction in blood oxygen tension; eight of 40 rats died.

FROM BIOL. ABST.

ESTROGEN ADSORPTION AND TOXICITY IN MALE WORKERS IN A CHEMICAL PLANT. G. H. FISK, *Can. M. A. J.* **62**:285, 1950.

Careless handling of concentrated estrogen preparations during manufacture resulted in toxic symptoms in five male workers.

CHEM. ABST.

THE USE OF BAL IN HEAVY METAL POISONING. H. N. MACFARLAND, *Indust. Health. Rev.* **2**:33, 1950.

BAL (British anti-lewisite) appears to be of value in the treatment of poisoning by salts of As, Hg, Cd, Au, Sb, Bi, Cu, Ni, and W. Little success has been obtained in the case of Pb, U, Ag, Co, Se, and Te compounds.

NUCLEAR SC. ABST.

THE EFFECT OF DIFFERENT DOSE LEVELS OF ZIRCONIUM ON THE EXCRETION AND DISTRIBUTION OF PLUTONIUM AND YTTRIUM. JACK SCHUBERT and MARCIA R. WHITE, *J. Biol. Chem.* **184**:191, 1950.

Zr injected into rats one hour after injection of Pu or Y causes an increase in urinary excretion of Pu or Y, proportional to the dose of Zr. The excess of Pu excreted after Zr treatment is primarily derived from the soft tissues, while the excess of Y excreted is derived from the skeleton as well. Following injection of Zr the Pu blood level was reduced to half the control level in 5 minutes and to 0.1 in 90 minutes. Zr and salts of other hydrolyzable elements, such as Ti, Fe and Mn, apparently remove Pu by absorption on colloidal aggregates formed in the blood.

ADAPTATION OF CHEM. ABST.

THE TOXICITY OF DDT: EXPERIMENTAL OBSERVATIONS AND SURVEY OF THE LITERATURE. W. B. DEICHMANN, S. WITHRUP, K. V. KITZMILLER, and F. F. HEYROTH, Kettering Laboratory, University of Cincinnati, 1950.

This 233 page monograph represents much the most exhaustive experimental study of DDT we have seen and is followed by a lengthy review of the literature (257 references) on all aspects of the problem. The Kettering Laboratory published it in connection with the hearings on economic poisons in the summer of 1950.

PHILIP DRINKER, Boston.

TOXICITY. HERMAN A. SHELANSKI, *Soap Sanit. Chem.* **26**:123, 125 and 139, 1950.

The importance of determining the degree of toxicity in a substance to be used in a chemical specialty and basic toxicity tests are discussed.

FROM CHEM. ABST.