

- 467 Inhibition of Oxidation of Benzene by Certain Antioxidants. Zh.I. Abramova and I.D. Gadasl
Federation Proc. 25, Part II (Translation Supplement) T91-T92 (Jan. -Feb. 1966).

Experiments with liver homogenate *in vitro* showed, that several antioxidants (propyl gallate cystamine, cystine, methionine) inhibit the oxidation of benzene. Experiments *in vitro* with liver homogenates of rabbits receiving methionine revealed depression of the oxidation of benzene. Experiments *in vitro* with homogenate of livers from rabbits with subacute benzene poisoning, receiving methionine and cystamine at the same time, revealed inhibition of benzene oxidation. Excretion of bound sulfur and glucuronides was reduced in rabbits with subacute benzene poisoning receiving sulfur-containing compounds at the same time. -- Authors' conclusion.

- 468 Factors Influencing Hazards in Isocyanate Foam-Spraying. K.E. Grim and R.E. Knox.
Am. Ind. Hyg. Assn. J. 27, 62-67 (Jan. -Feb. 1966).

Controlled foam-spraying experiments conducted in a sealed, unventilated room were designed to evaluate the influence of formulations and application techniques on atmospheric contamination with isocyanates. The conditions for sampling the atmosphere during application of formulations involving TDI (toluenediisocyanate) and MDI (methylenedibis(4-phenylisocyanate)) are described in detail. The Elastomers Laboratory spray gun, which mixes the chemicals internally, is compared to a conventional external-mix spray gun. Equipment for quantitative measurement of TDI and MDI retained by activated charcoal canisters is described, and results are given. Recommendations of the safest method of foam-spraying based on information acquired, and safety precautions, including the use of operator protection equipment, are discussed. Nine references are given. -- Authors' abstract.

- 469 Ethanol Potentiation of Halogenated Aliphatic Solvent Toxicity. H.H. Cornish and Julita Adel.
Am. Ind. Hyg. Assn. J. 27, 57-61 (Jan. -Feb. 1966).

Ethanol potentiation of toxicity could be readily demonstrated in rats exposed 18 hours later to carbon tetrachloride or trichloroethylene vapors, but not in those exposed to perchloroethylene or 1,1,1-trichloroethane. Serum enzyme levels and histopathologic studies served as a measure of toxic response. Subsequent exposure of ethanol-treated rats for eight hours to 25 or 500 ppm of carbon tetrachloride or to 100ppm of trichloroethylene failed to affect serum enzyme levels. However, ethanol potentiation of carbon tetrachloride toxicity could be demonstrated after as little as a two-hour exposure at 100ppm, and potentiation of trichloroethylene toxicity was apparent after a four-hour exposure to 5,000 ppm. Ten references are given. -- Authors' summary.

- 470 Epoxy Hazards in Industry. The Hazards and Their Control. W.E. Broughton.
Ann. Occ. Hyg. (London) 8, 131 (1965).

The main components of the epoxy resins in commercial use in England over the past two decades and their attendant hazards are identified. It is reported that no systemic intoxication of any significance has been associated with epoxy resins, but that both uncured resins and hardener can produce dermatitis and occasionally a sensitization after repeated contact with the skin. Hardening agents containing amines are said to be more irritating than uncured resins, which become increasingly inert as their molecular weight and viscosity is increased. The experience of several large plants manufacturing resins and the tabulated incidence of dermatitis at one of them over a period of approximately seven years are presented. Proper personnel selection, use of protective clothing and devices, instruction of employees on the nature of the hazard and proper work techniques, good plant layout, and adequate ventilation are the main points included in a description of means by which effective control of the hazards may be achieved.

-- J. Occ. Med. Abstr.

INDUSTRIAL DUSTS

- 471 Mesothelioma Associated With Asbestosis. A Report of Three Cases. R.H. Mann, J.L. Groves and W.M. O'Donnell. Cancer 19, 521-526 (April, 1966).

A study of 54 autopsies of patients dying with pulmonary asbestosis disclosed three cases of peritoneal mesothelioma, one of which was complicated by a mesothelioma of the pleura. In two of the three patients there was an occupational exposure history of 20 and 34 years in an asbestos textile plant. Although the remaining patient had classical asbestosis of the lungs at autopsy, there was no known history of industrial exposure to asbestos. The authors think asbestos can produce mesothelioma of either peritoneum or pleura; they present three cases to support the concept of a causal relationship. The increased utilization of asbestos material and the recent demonstration of asbestos bodies in the lungs of urban dwellers may have significant implications for cancer epidemiology in the future.

-- Authors' abstract.