the welder's breathing level such welding or cutting operations on zinc-silicate coated steel in poorly ventilated areas gave rise to fumes containing 4 to 75 times the maximum allowable concentrations (MAC) of lead, and 1 to 14 times the MAC of zinc. The same operations on galvanized steel under similar conditions produced fumes containing 2 to 4 times the MAC of lead, and 3 to 12 times the MAC of zinc. When ventilation was adequate the MAC was not greatly or consistently exceeded for either type of metal coating. -- Author's summary

A Little-Known Source of Lead Poisoning: the Manufacture of Ferrules for Electric Light Bulbs. L. Moreo. Med. Lavoro 50, 673-678 (Nov., 1959). Italian.

The author reports 2 cases of lead poisoning, one female and the other a male in operatives making the ferrules for electric bulbs. The poisoning is considered to have arisen through the use of "vetrite" a soft glass (into which the 2 metal supporters for the filament are placed) with a lead content which varied from 0.35% to 8%. The female patient had worked for 11 years a machine which automatically placed a blob of the fused glass on to the top of the ferrule, but she had had attacks of colic, vomiting, and oliguria 3 months before admission. She had an enlarged liver, signs of kidney damage, and a free erythrocytic protoporphyrin of 340 micrograms % and a postvorsenate urinary lead of 8,250 micrograms per 24 hours. The man had worked at one of the furnaces removing the fused glass for 20 years, and 24 months before admission had an obvious attack of lead poisoning. No estimation of the lead content of the air near the furnaces was carried out but a laboratory experiment showed that it was possible for as much as 3 to 4 mg. of lead per cu.m. per hour to be emitted. The author is certain that these 2 cases arose from the nature of the work and points out that they are the first to be recorded in the literature. -- Cond. from Bull. Hyg.

A Study of Carbon Tetrachloride. (1) The Effect of Carbon Tetrachloride Inhalation on Rat Serum Enzymes. H. H. Cornish and W. D. Block. A.M.A. Arch. Ind. Health 21, 549-554 (June 1960).

A single 4-hour exposure of rats to 1,000 or 1,500 ppm of carbon tetrachloride vapor results in marked variations in the level of serum glutamic-oxaloacetic transaminase (GOT), xanthine oxidase, and esterase. The extent of enzymatic change bears a direct relationship to the degree of exposure. During repeated daily exposures over a 10-day period, changes in serum enzyme activity could be demonstrated at exposure levels of 100 and 50 ppm of carbon tetrachloride vapor. In general, the female rat exhibits a more marked enzymatic response to carbon tetrachloride inhalation than does the male. While increases in serum GOT and xanthine oxidase may be due to release of enzymes from damaged tissue, the decrease noted in serum esterase must be accounted for by some other mechanism.
-- Authors' summary

Pathological Changes in Ethylene Dibromide Poisoning. E. V. Olmstead. A.M.A. Arch. Ind. Health 21, 525-529 (June 1960).

Search of the literature has failed to reveal a description of the pathological changes incidental to ethylene dibromide poisoning in humans. It was therefore felt worthwhile to document these changes as observed in a case which came to necropsy. Ethylene dibromide is used as a soil fumigant for the control of ground pests. It is available in pellet form and is ordinarily dissolved in water for use in the soil. Thousands of gallons are consumed annually in the United States. It is known to be a highly toxic material, and its systemic effects after oral ingestion are directed toward the liver and kidneys in experimental animals. Ethylene dibromide is also used commercially in "leaded" gasolines and as a chemical intermediate. The author describes a case of a 43-year-old white woman who ingested 9 Fumisol capsules, each containing 3.5 ml. of ethylene dibromide. The patient died 54 hours after ingestion of the poison. The pathological changes resulting from the ingestion of 4.5 ml. of ethylene dibromide are described. The major changes were characterized by massive central lobular necrosis of the liver with focal proximal tubular epithelial damage in the kidney. These changes parallel those found in various experimental animals after oral administration of this chemical.