

experimentally in concentrations of 0.6-0.8 per cent caused the death of guinea pigs and mice after five to 10 hours, with tonic and clonic spasms. Post mortem the organs of these animals were hyperemic, the liver fatty and the convoluted tubules of the kidneys swollen; the lungs were congested, with extravasations, and there were small hemorrhages throughout the central nervous system.

The dangers of such a leakage are not negligible, as is obvious from the cases described, and are greater because the gas is almost odorless. The author suggests the addition of some substance which will reveal by some definite odor any escape of the toxic methyl chloride.

CONDENSED FROM BULLETIN OF HYGIENE.

COLORIMETRIC MICRODETERMINATION OF SMALL AMOUNTS OF SILICIC ACID IN BLOOD AND URINE AND ITS USE IN THE LUNG CLINIC. HANS GOHR and OTTO SCHÖLL, Beitr. z. Klin. Tuberk. 102:29, 1949.

A micromethod is described for the determination of silicic acid in blood and urine. The organic matter is destroyed with nitric acid and potassium sulfate. The silicic acid is separated and dried with sulfuric acid. The silicon dioxide is washed with hydrochloric acid and water to free it from phosphoric acid and iron and is dissolved in a potassium carbonate melt. Finally the silicon dioxide is determined by transformation into a yellow silicomolybdenum combination which is changed by reduction with hydroquinone and sodium sulfite to molybdenum blue. The color intensity is measured in a Stufen photometer. In preliminary tests the method proved specific and sensitive to 5 μ g. Amounts of silicon dioxide added to urine and blood were recovered almost quantitatively with an error of 3 to 5 per cent. Samples of 2 cc. suffice for urine and blood analysis. Normal urine averaged 3.6 and normal blood 1.6 mg. silicon dioxide per 100 cc.

ADAPTED FROM CHEM. ABST.

ALLERGIC REACTIONS IN PERSONS WORKING WITH CASTOR OIL SEEDS. K. REJSEK, Arch. med. Rada (Belgrade) 3:209 (Dec.) 1948.

In the castor oil industry, during pressing and extracting castor oil from seeds and pulp, some disturbances of health, partly of an allergic character, make themselves apparent. They manifest themselves in the form of heavy conjunctivitis, acute dermatitis and eczema, and finally attacks of bronchial asthma. The attacks of asthma are of three clinical types. One type of attack would take place immediately in the first hours of work, and it would exclude the worker immediately. In the second type, the worker would feel, after having worked a certain time with these seeds, greater and greater difficulty in breathing, until finally a typical attack of asthma would develop. The third clinical type is characteristic in the fact that the symptoms do not manifest themselves during work, but attacks occur periodically during the night.

All the patients examined had in their blood picture a heavy eosinophilia, and reacted to the phosphate extract of castor seed pulp, from which the oil has been extracted.

ADAPTATION OF ENGLISH SUMMARY.

HYGIENIC PROBLEMS IN INDUSTRIAL USE OF PHENYL MERCURY COMPOUNDS. KARL-DAVID LUNDGREN and ÅKE SWENSSON, Nord. hyg. tidsk. 1950, nos. 7-8, p. 207.

Toxicity tests on mice showed that good control was needed in the industrial handling of phenyl mercury compounds. A medical control program was established in connection with experimental processes dealing with phenyl mercury compounds in three Swedish paper mills. The usual routine clinical examination of the workers was supplemented with blood counts and liver function tests. Following mercury vapor inhalation or ingestion, the absorbed mercury is excreted in the urine over a period of several weeks. This offers an opportunity to determine even very short exposures. Urinalyses are thus a good method of checking the effectiveness of the engineering control of mercury vapor concentration in the plant. In the three industries investigated, the urinalyses have shown only a few increased values, and these dropped to the base line of the method in a very short time. Analyses of air have shown small amounts of mercury up to 0.07 mg./M³ at only a few locations in the plants.