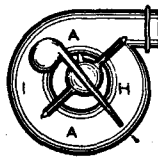


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Industrial Hygiene Summary Reports

This Journal welcomes brief comments derived from your daily activities which may be useful to other members of the profession. Address your communications to: R. F. Scherberger, Laboratory of Industrial Medicine, Building 2, Kodak Park Works, Eastman Kodak Company, Rochester, New York 14650.

Blown Asphalt Not Carcinogenic

Previously reported studies have shown that petroleum asphalts, shale oil asphalts, and coal tars exhibit distinct variations in their relative carcinogenicity for experimental animals as well as for man. Recent observations reported by Bogovoski indicate that aeration reduced the carcinogenic potency of Estonian shale oil and prompted the present investigation of the carcinogenicity of blown petroleum asphalt. Four materials were applied twice weekly to the clipped necks of C57 black mice from the NIH stock: (1) benzol-soluble extract from natural Trinidad asphalt; (2) crude oil; (3) asphalt with a penetration of 150 to 200 (ASTM method), which is obtained by distillation from the crude oil and is then heated and treated with a stream of blown air to give (4) a highly oxidized "blown" asphalt. The crude oil was applied directly to the animals, but slight acetone dilutions of the other three materials were used.

The four materials tested proved to be noncarcinogenic or so weakly carcinogenic to the skin of C57 black mice that they did not elicit any cancers within the normal life span of the species and strain. The carcinogenicity of petroleum asphalts may be reduced by diluting them with natural asphalts or by converting them into blown asphalts.

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Safe Disposal of Contaminated Sacks

Exposure of workers to toxic dusts can occur while paper sacks are being opened and

during subsequent handling involved in disposal. For example, in one operation litharge was dumped and then the empty sacks were piled high in the worker's arms and carried to the rear of the plant where they were burned in a 55-gallon drum. Lead fumes from this operation were observed entering the open plant windows, and a large puddle of lead was later found in the burned-out drum. A unique control system was evolved by integrating the operation of the hood, the exhaust ventilation, and a gas-fired incinerator. The hood exhaust runs horizontally a short distance and has a conveyor belt on the bottom. The empty sacks are placed on the conveyor and fed into the incinerator. The incinerator flue acts as the exhaust duct for the hood.

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Piperidine—A Hazardous Chemical

On August 17, 1964, a chemical operator engaged in transferring piperidine under room-temperature conditions received unexpectedly severe chemical burns when the material sprayed from the drum. First-degree burns of the face, left ear, and neck, second-degree burns of the forearms and abdomen, and third-degree burns of the chest developed even though less than 3 minutes elapsed before the man was under a safety shower and his clothes were removed. This was the first such incident of skin contact of any significant extent to come to our attention during a period of more than 20 years' production and use of piperidine. Past experience and available references (*Industrial Hygiene and Toxicology*, F. A. Patty, Vol. II, 2nd ed., Inter-