

CHEMICAL LINKED TO CANCER IN MICE

Liver Disease Is Produced
in Vinyl Chloride Study

By JANE E. BRODY

An industry-sponsored study of vinyl chloride has indicated that when mice are exposed to the amount of the chemical that workers are currently permitted to inhale, the animals develop a rare fatal cancer of the liver that has been found in 12 vinyl chloride workers.

Vinyl chloride, an explosive gas, is used to make polyvinyl chloride, the basis for much of modern plastics. Some 6,500 workers are involved in the vinyl chloride-polyvinyl chloride industry. In addition, vinyl chloride has been used as a propellant in some aerosol consumer products, including hair sprays and pesticides.

The industry's laboratory finding, presented yesterday to a private briefing for Government and industry officials, raises questions about the safety of the current Federal emergency occupational standard of 50 parts of vinyl chloride per one million parts of air.

At this level of exposure for seven hours a day over seven months, several mice in the study, sponsored by the Manufacturing Chemists Association, are reported to have developed angiosarcoma, or cancer of the liver.

In a previous study, Prof. Cesare Maltoni of the Cancer Institute in Bologna, Italy, found the cancer in rats at levels of 250 parts per million and higher.

Professor Maltoni's studies to date have shown no adverse effects at 50 parts per million, and it was partly for this reason that the U.S. Department of Labor's Occupational Safety and Health Administration chose 50 parts per million for the emergency standard.

Developed Spontaneously

John O'Neill, chief of health standards development at the agency, said yesterday that the emergency standard would remain until "we have looked closely at the data and seen how good it is." He noted that mice sometimes develop angiosarcoma of the liver spontaneously.

Mr. O'Neill said that the agency expected to publish in the Federal Register next week a proposed permanent standard for vinyl chloride that would more closely reflect the judgment of its scientific advisers, the National Institute for Occupational Safety and Health.

They and other scientists have said that there can be no safe level established for exposure to a cancer-causing agent, and that workers should not be exposed to any detectable levels of vinyl chloride.

The hair sprays in question, manufactured by Clairol and Bonat, Inc., are being recalled from store shelves. The Environmental Protection Agency is expected to release today the brand names of pesticides containing vinyl chloride. The agency said yesterday that all 23 manufacturers had agreed to substitute a different propellant, and all are being asked to voluntarily recall existing products containing vinyl chloride.

The environmental agency is studying what to do about the more than 300 million pounds of vinyl chloride that escape into the environment each year in the process of plastics manufacturing.

Vinyl chloride had been used as an industrial chemical for more than 30 years in this country with relatively little concern about its possible toxic effects.

In January, the B. F. Goodrich Company announced that four workers in its polyvinyl chloride plant in Louisville, Ky., had developed liver cancer. There are seven cases known at the Louisville plant and five elsewhere. The announcement led to an industrywide search for the possible effects of the chemical. Mass medical examinations were given at one plant in Niagara Falls.

The latest study, supported by the chemists association and conducted by Bio-test Laboratories, Inc., in Northbrook, Ill., was begun last summer, before the Goodrich announcement, in response to early reports of Professor Maltoni's findings.

Car With Chemical Derails

PHILADELPHIA, April 15 (AP) — A railroad freight car derailed and leaked some of its cargo of vinyl chloride onto a main road here late last night. There were no injuries.

Thomas Hopping, a spokesman for Penn Central, said: "It is noxious. It is flammable and dangerous. But the situation right now is that we have everything under control. There is no hazard at this point in time as far as the leak is concerned."

The 38,000-gallon-tank car was one of three that derailed from a 52-car Penn Central freight. The tanker slid down an embankment, onto West River Drive, blocking the four-lane road. The officials close it to traffic today.

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