



DOW CHEMICAL U.S.A.

For please replace this in the report mentioned Z

P O BOX 1706

MIDLAND, MICHIGAN 48640

January 4, 1977

W. V. Andresen, American Cyanamid Company
Z. G. Bell, PPG Industries, Inc.
H. A. Cantor, A. E. Staley Manufacturing Co.
M. Freifeld, Manufacturing Chemists Association (3)
R. Jadrnicek, BASF Wyandotte Corporation
M. N. Johnson, B.F. Goodrich Chemical Company
A. Konishi, Kureha Chemical Industry Co., Ltd.
J. R. McDonough, Tennessee Eastman Company
W. A. Patterson, W. R. Grace & Company
L. Rapoport, Olin Corporation
J. M. Smith, Rohm & Haas Company
R. J. Turner, Morton Chemical Company
P. J. Vanderhorst, E.I. duPont de Nemours & Company
P. L. Wright, Monsanto Company
J. Yamada, Asahi-Dow Limited

Please excuse the delay in sending the first page of the 90-day inhalation study on VDC in rats. The enclosed sheet should replace page 1 of the report you have already received. The only change on this page has been in the last sentence of the second paragraph.

Milton Freifeld will send this report to the Federal Agencies as the approved MCA report on this study.

J. M. Norris
J. M. Norris
Health and Environmental Research

Enclosure

Jan

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AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

SUMMARY AND CONCLUSIONS

Groups of male and female Sprague-Dawley rats have been repeatedly exposed to vinylidene chloride (VDC) vapors by inhalation 6 hrs/day, 5 days/week. Rats were exposed to 25 or 75 ppm VDC vapors 60 times during 90 days. There was an interim kill after 30 days of the study. Another, parallel, study was carried out in the same chambers. The second study was a two-year study.

No adverse effects were seen with respect to body weight, hematologic parameters, clinical chemistry values, demeanor or mortality in animals of either sex. Minimal microscopic changes in the liver in the form of cytoplasmic vacuolation of the hepatocytes occurred in occasional animals in both levels at the 30-day interim kill. The incidence of hepatic changes was greater in animals of the 75 ppm group which were examined at the end of the 90-day study. At this point in time, it is concluded that repeated exposure of rats to 25 or 75 ppm of VDC vapors results in minimal liver changes which are interpreted to be of a reversible nature.