



11 M - 2876

Date 23 June 1975

INTEROFFICE
MEMORANDUM

Subject B. F. Goodrich PVC Resin

Feeding Study

To Distribution

(Location, Organization, or Department)

From W. Mayo Smith

(Location, Organization, or Department)

Distribution: *A. Ross Adams/M. Kuschner--if desired
*T. L. Carey/J. T. Barr
*Richard Fleming
**J. V. Heider
**G. J. Mantell

*Complete report

**Page one cover & letter R. N. Wheeler dated
18 June 1975

Nick Wheeler of Union Carbide has forwarded to me "Animal Feeding Studies on Geon 202" for B. F. Goodrich Company at Harvard University. The writer has believed Geon 202 in this 1947 survey is a copolymer of approximately 97/3 vinyl chloride/vinylidene chloride.

The conclusion is that this resin containing an undefined amount of monomers proved to be of no toxicological hazard.

Mayo Smith

WMS:clw

Attachment

RECEIVED

JUN 25 1975

R. FLEMING, V. F.

(320)

AP00008732



INTERNAL CORRESPONDENCE

RECEIVED
RESEARCH & DEVELOPMENT

JUN 20 1975

W. M. SMITH

CHEMICALS AND PLASTICS

SOUTH CHARLESTON PLANT

P. O. BOX 8004, SOUTH CHARLESTON, W. VA. 25303

To (Name)
Division
Location

Dr. W. B. Ackart, 312
Mr. G. P. Bigelow, NYO-32
Dr. J. J. Brezinski, 511
Charles P. Carpenter, Ph.D., Mellon Institute
Dr. C. U. Dernehl, NYO-4
Mr. H. R. Guest, 511
Dr. E. Q. Hull, 511
Dr. L. P. McMaster, 312
Dr. A. B. Steele, NYO-28
Dr. T. T. Szabo, NYO-32

Date June 18, 1975

Originating Dept.

Answering letter date

Subject PVC Resin Feeding Study
(Two Years)

One of the EPA studies on vinyl chloride mentioned a resin feeding study conducted at Harvard University for B. F. Goodrich Company in 1947. On request, the B. F. Goodrich Company has kindly supplied a copy of the study report, "Animal Feeding Studies on Geon 202".

Geon 202 is a plastisol blending or extender resin with an inherent viscosity of 0.86. Its composition is not completely known though it is believed to be 95 to 99% vinyl chloride. The median particle size is 50 microns. Particle porosity is relatively high for a blending resin though much less than a general-purpose suspension homopolymer. The residual monomer content would probably have been over 1,000 ppm at the time of manufacture. During the study, an assumed residual monomer content of 50 ppm would not be unreasonable.

The study has value in supporting the use of PVC in food packaging, and in demonstrating the lack of hazard from resin to employees in manufacturing PVC resins. It also offsets some of the damage done by the Volkheimer paper at the New York Academy of Sciences conference on Toxicity of Vinyl Chloride-Polyvinyl Chloride, May 10 and 11, 1974 (Hematogenous Dissemination of Ingested Polyvinyl Chloride Particles by Gerhard Volkheimer). The Volkheimer paper has been cited often as a "horror story" on ingesting PVC resin despite the extremely small particles used in the study (0 to 60 millimicrons).

Very truly yours,

R. N. Wheeler, Jr.

RNWJr/ra

Attachment

AP00008733

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RESEARCH & DEVELOPMENT
JUN 20 1975
W. M. SMITH

ANIMAL FEEDING STUDIES ON GEON 202

Performed by Harvard University
for
The B.F. Goodrich Company

(1947)

AP00008734

JOSEPH E. KELLER
JEROME H. HECKMAN
CHARLES M. MEENAN
WILLIAM H. BORGHESEANI, JR.
ROBERT R. TIERNAN
WAYNE V. BLACK
DAVID L. HILL
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7/8 → RF —
~~JTB~~
Barry Barnes
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July 3, 1975

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JUL 9 1975

R. FLEMING, V. F.

Mr. Richard J. Ronk
Director, Division of Food
and Color Additives
Room 5827, HFF-330
Food and Drug Administration
200 "C" Street, S. W.
Washington, D. C. 20204

RECEIVED

JUL 7 1975

A. ROSS ADAMS

Re: Polyvinyl Chloride Feeding Study

Dear Mr. Ronk:

Through the courtesy of the B. F. Goodrich Chemical Company, we have recently obtained a copy of a feeding study conducted some time ago by the Harvard Medical School. In this study Geon 202, a copolymer of vinyl and vinylidene was fed to rats and dogs for a two-year period at a 5% level in the daily diet. Although it appears that the study was conducted after consultation with Food and Drug Administration personnel, we are supplying a copy of the study at the request of B. F. Goodrich Chemical Company on the off-chance that the data was not sent to the Food and Drug Administration upon its completion or may have been misplaced.

Although the report is not as complete as might be considered desirable under today's standards, we believe your toxicologists will agree that it comports with the standards of its day. Inasmuch as the resin used in this study, which was conducted many years ago, must have been typical of older products of this type, we believe the results should help to provide additional assurance that the prior sanctioned status of PVC resins was well founded.

AP00008735

Mr. Richard J. Ronk
July 3, 1975
Page Two

If additional information regarding any aspect of the study is required, we are sure that such information as is available can be obtained from the sponsor, the B. F. Goodrich Chemical Company. If there is anything else that we can do to be of assistance, however, please do not hesitate to contact us.

Cordially yours,



Enclosure

bcc: Mr. A. Ross Adams ✓
Mr. John Nelson
VCM and PVC Producers Committee
Steering Committee
Mr. Ralph L. Harding, Jr.
Mr. Thomas J. McGrath
Mr. John R. Lawrence