

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
WESTERN DIVISION

HERMAN A. DENDINGER, et al.,	)	Case No. C 84-7854
	)	[Hon. Nicholas J. Walinski]
Plaintiffs,	)	
	)	
vs.	)	RESPONSE OF DEFENDANT DIAMOND
	)	SHAMROCK CORPORATION TO
CHRYSLER PLASTIC PRODUCTS	)	PLAINTIFFS' INTERROGATORIES
CORPORATION, et al.,	)	DIRECTED TO ALL DEFENDANT
	)	<u>PVC MANUFACTURERS</u>
Defendants.	)	

-oOo-

Now comes Defendant Diamond Shamrock Corporation, and
in response to plaintiffs' interrogatories, states as follows:

INTERROGATORY NO. 1: Are you a manufacturer of
polyvinyl chloride (PVC) resin?

ANSWER:

No. Diamond Shamrock has not manufactured PVC resin
since the sale of its PVC operations to BFGoodrich Company on
12/21/81 (Deer Park, TX plant) and to Ethyl Corporation on
4/15/82 (Delaware City, DE plant).

INTERROGATORY NO. 2: When did you first begin
manufacturing PVC resin?

ANSWER:

In or about 1953.

INTERROGATORY NO. 3: Have you manufactured PVC resin
continuously since the date indicated in your answer to
interrogatory number 2?

UCC
045906

ANSWER:

Diamond Shamrock produced PVC resin continuously from about 1953 until April 15, 1982.

INTERROGATORY NO. 4: Indicate the percentage of all PVC resin manufactured by you in calendar year 1967 that was the result of the following processes: (a) suspension; (b) emulsion; (c) bulk; or, (d) solution.

ANSWER:

This information is not available to Diamond Shamrock at the present time for its former Delaware City, DE plant. Diamond's former Deer Park, TX plant produced PVC resin by suspension and emulsion (dispersion) processes.

INTERROGATORY NO. 5: Indicate the extent to which the percentages of your total PVC resin output attributed to any of the four processes identified in the prior interrogatory have changed since calendar year 1967, by indicating the specific changes made and dates of all such changes.

ANSWER:

As of 1975, approximately 88% of Deer Park resins were produced by the suspension process and 12% by the emulsion process. In and after 1975, these percentages changed to 95% and 5%, respectively.

INTERROGATORY NO. 6: Did you sell any PVC resin to Chrysler during calendar year (a) 1967; (b) 1968; (c) 1969; (d) 1970; (e) 1971; (f) 1971 [sic]; (g) 1972; (h) 1973; (i) 1974; (j) 1975; (k) 1976; (l) 1977; (m) 1978; (n) 1979; and, (o) 1980.

ANSWER:

See Exhibit 1 attached hereto for a summary of Diamond Shamrock's sales of PVC resins to Chrysler Plastics for the years 1967-1980.

INTERROGATORY NO. 7: If your answer to the preceding interrogatory is, in any part, "yes", indicate the total volume of PVC sold to Chrysler during every year that you sold PVC resin to Chrysler.

ANSWER:

See Exhibit 1 attached hereto.

INTERROGATORY NO. 8: For every calendar year between 1967 and 1980, inclusive, that you sold PVC resin to Chrysler, indicate the percentage of such resin which was manufactured by the following processes: (a) suspension; (b) emulsion; (c) bulk; and, (d) solution.

ANSWER:

All resins sold to Chrysler Plastics Division between 1967 and 1980 were produced either by the suspension or emulsion process as follows:

	<u>Suspension</u>	<u>Emulsion</u>
1972	0%	100%
1973	86%	14%
1974	100%	0%
1975	99.9%	0.1%
1976	60%	40%
1977	13%	87%
1978	0%	100%
1979	0%	100%
1980	≥47%	≥4%; ≤53%

INTERROGATORY NO. 9: Did you at any time conduct any testing to determine the concentration of vinyl chloride monomer contained in your PVC resin at any time following manufacturing?

ANSWER:

Yes.

INTERROGATORY NO. 10: If your answer to the preceding interrogatory is "yes," indicate: (a) what testing was done; (b) when such testing was done; (c) who conducted the testing; and, (d) what the results were.

ANSWER:

Upon information and belief, testing for residual vinyl chloride monomer (RVCM) in Diamond Shamrock's PVC resins was conducted on a daily basis by Diamond's quality control laboratories at its Deer Park and Delaware City plants from 1975 through 1982, and on a less frequent basis prior to 1975. Due to the sale of Diamond Shamrock's plastics businesses, very few records remain in Diamond Shamrock's possession regarding such testing. The two records located thus far are Exhibit 2 attached hereto, indicating that random average RVCM in PVC 450 bulk car shipments averaged 102.39 ppm in 1974 and 20.61 ppm in 1975; and Exhibit 3 attached hereto, giving daily RVCM values for various PVC slurries for various dates in 1979, 1980 and 1981. Upon information and belief, after such slurries went through dewatering, drying and weathering prior to shipment, RVCM levels in PVC resins were further reduced to levels below 10 ppm in such years.

INTERROGATORY NO. 11: For every calendar year in which you sold PVC resin to Chrysler, indicate what percentage of the PVC resin sold was: (a) homopolymer; (b) copolymer; or, (c) terpolymer. _

ANSWER:

All PVC products sold to Chrysler Plastics Division between 1968 and 1980 were either homopolymer or copolymer, as follows:

	<u>Homopolymer</u>	<u>Copolymer</u>
1972	100%	0%
1973	100%	0%

1974	100%	0%
1975	100%	0%
1976	100%	0%
1977	87%	13%
1978	100%	0%
1979	100%	0%
1980	≥37%; ≤96%	≥4%

INTERROGATORY NO. 12: With respect to every sale of PVC resin from you to Chrysler, indicate the date on which such resin was manufactured and the date on which such resin was shipped to Chrysler.

ANSWER:

Upon information and belief, the invoices, copies of which are collectively marked as Exhibit 4 attached hereto, constitute records of all of the PVC resins shipped by Diamond Shamrock to Chrysler Plastics Division during the period 1968 through 1980. These invoices indicate the dates of shipment of such resins. Diamond Shamrock no longer has records of the dates on which such resins were manufactured; typically, shipment would follow manufacture by a matter of one to several days.

INTERROGATORY NO. 13: Did you, at any time, notify Chrysler of any studies indicating that vinyl chloride monomer was: (a) hazardous to human health or (b) that vinyl chloride monomer was a suspected carcinogen?

ANSWER:

Yes.

INTERROGATORY NO. 14: If your answer to the prior interrogatory is "yes," state in full, the date and substance of every such notification to Chrysler.

ANSWER:

From 1974 until it ceased manufacture of PVC products in 1982, Diamond Shamrock complied with the requirements of 39 Fed. Reg. 12,342 and 29 C.F.R. §1910.1017. In particular, bags containing PVC products were either stamped with the following warning:

"POLYVINYL CHLORIDE
CONTAINS VINYL CHLORIDE
VINYL CHLORIDE IS A
CANCER-SUSPECT AGENT"

or labeled with the following warning sticker:

"POLYVINYL CHLORIDE
CONTAINS
VINYL CHLORIDE
VINYL CHLORIDE IS A CANCER-SUSPECT AGENT"

in compliance with the OSHA standard.

Railroad cars containing PVC products were labeled with wire-on tags at their unloading points containing the same message.

INTERROGATORY NO. 15: When did you first become aware of any study indicating that vinyl chloride monomer was a suspected carcinogen; or, (b) hazardous to human health?

ANSWER:

Upon information and belief, Diamond Shamrock first became aware of evidence that VCM was capable of producing cancer in humans in January of 1974, when BFGoodrich Company announced in a press release that it had determined that several of its workers exposed to high levels of VCM had contracted angiosarcoma.

INTERROGATORY NO. 16: What steps were taken by you prior to, or during the course of, your sales of PVC resin to Chrysler to determine the concentration of residual vinyl chloride monomer in said resin.

ANSWER:

See answer to Interrogatory 10 above.

INTERROGATORY NO. 17: What steps were taken by you prior to, or during the course of, your sales of PVC resin to Chrysler, to determine whether any component of that resin was an actual or potential carcinogen?

ANSWER:

Diamond Shamrock supported, and cooperated with, an epidemiological study of vinyl chloride workers. A copy of the May 3, 1974 report of this study is attached hereto as Exhibit 5.

INTERROGATORY NO. 18: Did Chrysler, at any time, ever ask you whether you were aware of any studies indicating that exposure or overexposure to vinyl chloride monomer posed any actual or potential human health hazard?

ANSWER:

Diamond Shamrock is not aware of any such request by Chrysler.

INTERROGATORY NO. 19: Describe the steps taken by you subsequent to January, 1967 to reduce the concentration of residual vinyl chloride monomer in PVC resin manufactured by you.

ANSWER:

Prior to 1974, Diamond Shamrock stripped RVCN from PVC primarily in order to recover the RVCN for recycling. After 1974, Diamond Shamrock's Deer Park and Delaware City Plants added more sophisticated stripping equipment which by 1977 resulted in RVCN concentrations in PVC products which were generally less than 10 parts per million.

INTERROGATORY NO. 20: State the full name, home address and business address of your employee who is most knowledgeable concerning the residual concentrations of vinyl chloride monomers in the PVC resins manufactured by you between January 1, 1967 and December 31, 1980.

ANSWER:

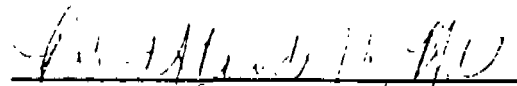
Dale Muehlenbrock
Diamond Shamrock Chemicals Company
Tidal Road
Deer Park, TX 77536

16407 Shady Elms Drive
Houston, Texas 77059

AS TO OBJECTIONS:

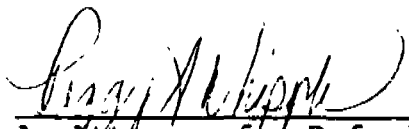
Of Counsel For Defendants
The BFGoodrich Co., The
Goodyear Tire & Rubber Co.,
Firestone Tire & Rubber Co.,
Conoco, Inc., Uniroyal, Inc.,
Union Carbide Corp., and
Diamond Shamrock Corp.:

FULLER & HENRY
1200 Edison Plaza
300 Madison Avenue
P.O. Box 2088
Toledo, Ohio 43603


Robert A. Bunda
1200 Edison Plaza
300 Madison Avenue
P.O. Box 2088
Toledo, Ohio 43603
Telephone: (419) 255-8220
Attorney for Defendants
The BFGoodrich Co., The
Goodyear Tire & Rubber Co.,
Firestone Tire & Rubber Co.,
Conoco, Inc., Uniroyal, Inc.,
Union Carbide Corp., and
Diamond Shamrock Corp.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Responses
to Plaintiff's Interrogatories Directed to all Defendant PVC
Manufacturers was mailed by United States mail, postage prepaid,
to Kirk J. Delli Bovi, Esq., attorney for plaintiff, at his
office located at Murray & Murray Co., L.P.A., 300 Central
Avenue, Sandusky, Ohio 44870, and to defense counsel as set forth
in the attached Schedule of Service this 10/14 day of October,
1986.


An Attorney for Defendants
The Goodyear Tire & Rubber
Company, The BFGoodrich
Company, Firestone Tire &
Rubber Company, Conoco,
Inc., Uniroyal, Inc., Union
Carbide Corporation, and
Diamond Shamrock Corp.

UCC
045914

SCHEDULE OF SERVICE

M. Donald Carmin, Esq.
800 United Savings Building
Toledo, Ohio 43604
Attorney for Defendants
Chrysler Plastic Products
Corporation
Norman P. Phillips
Albert W. Cramer
Robert D. Gustine
William C. Holsapple
Ron C. Abbott

Willis P. Jones, Jr., Esq.
200 Toledo Legal Building
416 N. Erie Street
Toledo, Ohio 43624
Attorney for Defendant
DiversiTech General, Inc.

S. Stuart Eilers, Esq.
Douglas N. Barr, Esq.
Timothy J. Coughlin, Esq.
1100 National City Bank Bldg.
Cleveland, Ohio 44114
Attorney for Defendant
Stauffer Chemical Company

H. William Bamman, Esq.
414 N. Erie Street
Toledo, Ohio 43624
Attorney for Defendant
A. Schulman, Inc.

Ellis F. Robinson, Esq.
610 United Savings Building
Toledo, Ohio 43604
Attorney for Defendant
Shintech, Inc.