

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS
WESTERN SECTION

PAUL M. CULLINAN, et al., *
 Plaintiffs, *

vs. *

MONSANTO COMPANY, et al., *
 Defendants. *

Civil Action
No. 85-0378-F

MONSANTO COMPANY'S ANSWERS TO PLAINTIFFS'
SECOND SET OF INTERROGATORIES

Monsanto Company ("Monsanto") submits the following answers and objections to the plaintiffs' second set of interrogatories addressed to it. In responding to these interrogatories Monsanto has complied with the appropriate provisions of the Federal Rules of Civil Procedure, which may vary from the "instructions" and "definitions" included therein. In each instance Monsanto's answer to an interrogatory is made subject to, and without waiving any objections to the same interrogatory.

STATEMENT

In the course of preparing responses to these interrogatories, Monsanto made diligent efforts to research documents and data within its control that pertain to the subject matter of this litigation. However, in many instances records no longer exist from which responses might have been drawn; these being previously disposed of in the regular course of business. The following responses are based upon information presently available to Monsanto after reasonable inquiry. It is anticipated that future investigatory efforts may supply additional facts or information which may lead to substantial changes or additions to these responses.

GENERAL OBJECTIONS

Monsanto has been dismissed from this action with respect to all counts other than that one asserting a claim on behalf of Margaret Cullinan for "pre-death" loss of consortium. This cause of action, if it exists, is necessarily dependent upon plaintiffs' allegation that Mr. Cullinan's death was caused by exposure to VC and PVC in the course of his employment with Monsanto. Thus, Monsanto objects to any interrogatory which (1)

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is not limited to the relevant time period of 1969-1973 (the time period within which plaintiffs allege the exposure occurred. See Answer No. 2, Plaintiffs' Answers to Dow's First Set of Interrogatories.); (2) seeks information or data relating to injuries or toxicities other than the type of injury or toxicity alleged by plaintiffs in this case; (3) seeks information or data relating to products produced or used at locations other than the Indian Orchard plant where Mr. Cullinan worked; or (4) seeks information or data concerning product uses other than the product use with respect to which plaintiffs claim injurious exposure to Mr. Cullinan while in Monsanto's employ. All such interrogatories are overly broad, unduly burdensome, not relevant to the subject matter involved in this action, and not reasonably calculated to lead to the discovery of admissible evidence.

ANSWERS

Interrogatory No. 1

Please state the name, address and job title of all persons answering these interrogatories. Please indicate which specific interrogatories have been answered by each person so identified.

Answer No. 1

Leo P. Paradis, Environmental Operations

Nos. 19, 20, 23, 24, 25, 36, 38, 39, 40, 41, 73, 74, 75, 80, 90, 92, 93, 94, 108, 122.

Robert A. Rusczek, Industrial Hygiene

Nos. 13, 16, 53, 61-64, 66, 81, 82, 85, 91, 95, 114, 122-123

Robert D. Short, Jr., Medicine & Health Sciences

Nos. 5, 6, 7, 9, 10, 11, 42, 87, 117, 122, and 123.

William R. Gaffey, Epidemiology

Nos. 40, 42, 69, 70, 71, 76, 83, 84, 98, 99, 100, 102, 103, 122, 123.

George Roush, M.D.

Nos. 86, 87, 96, 97, 98, 99, 100, 105, 112, 113, 118, 122, 123.

In preparing answers to these interrogatories, Monsanto enlisted the assistance of the above named individuals. They are all current employees of Monsanto. While the assignment of a number means that that individual assisted in answering that particular interrogatory, it should not be interpreted as meaning that that individual had sole responsibility for the answer's preparation.

Interrogatory No. 2

For each product containing PVC or VC manufactured, produced, marketed, sold, and/or distributed by you at any time, please state the following:

a. trade name;

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- b. intended use;
- c. composition, including type of PVC or VC used and percentage of PVC or VC and other substances, if any;
- d. form of product and manner of packaging;
- e. dates during which you manufactured, produced, marketed, sold, or distributed this product;
- f. whether or not this product is still being manufactured, produced, marketed, sold or distributed by you, and if not, the date of discontinuance and withdrawal from the market and the reason for said discontinuance or withdrawal;
- g. whether or not any memoranda, specifications, reports, or other documents relating to the preparation or design of such products now exists. If so, please identify each such document.

Answer No. 2

Monsanto has already provided the information responsive to this inquiry. See the answers to interrogatory numbers 7, 9 and 10 previously propounded.

Interrogatory No. 3

For each product containing PVC or VC purchased or used by you at any time, please state the following:

- a. trade name;
- b. intended use;
- c. composition, including type of PVC or VC used and percentage of PVC or VC and other substances, if any;
- d. form of product and manner of packaging;
- e. dates during which you purchased or used this product;
- f. whether or not this product is still being purchased or used by you, and if not, the date of discontinuance and the reason for said discontinuance;
- g. whether or not any memoranda, purchase orders, specifications, reports, or other documents relating to your purchase or usage of such products now exists. If so, please identify each such document.

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Answer No. 3

Monsanto has already provided the information responsive to this inquiry. See the answers to interrogatory numbers 7, 9 and 10 previously propounded.

Interrogatory No. 4

For the years 1950-1980, please state:

- a. The manner in which records of purchase and sales of PVC/VC products by you were maintained, including where records were kept, are now kept, the information contained in them, the length of time such records are maintained, and the identity of the person or persons having custody of such records;
- b. the manner in which such records were destroyed or discarded, including the dates of destruction or discard, the identity of the person or persons responsible and identification of any policies or guidelines which concern or relate to the destruction or discarding of such documents.

Answer No. 4

Monsanto objects to this interrogatory on the grounds that it seeks information outside the time period of 1969-1973 and is therefore overbroad, not relevant, and not reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that once each year all files are cleared of documents that are no longer necessary. This file review is required of all operating units and staff departments in the United States by the Office of the Corporate Secretary. After the annual file review, each group must certify to the Office of the Corporate Secretary that all remaining documents are in compliance with the retention times listed in the Record Management Manual. For sales records this is "Year originated + 2 or less if not useful" and for purchasing records is "Until 1 year after termination of contract."

The documents inquired about no longer exist. It is impossible to provide a more specific response to the inquiries made.

Interrogatory No. 5

Prior to releasing the products listed by you in your answer to Interrogatory #2, were any tests conducted by you to determine potential health hazards of these products? For each such test, please state:

- a. date of tests;

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- b. names, addresses and job titles of individuals conducting such tests;
- c. results, including specific diseases or parts of body found to be affected.

Answer No. 5

Monsanto objects to this interrogatory on the grounds that it seeks information not relevant to the subject matter of this action and which is not reasonably calculated to lead to the discovery of admissible evidence. Mr. Cullinan was an employee of Monsanto's, not a customer.

Without waiving this objection, Monsanto states that it has not located any records which indicate that a test of the type inquired about was conducted.

Interrogatory No. 6

Prior to the purchase or use of the products listed by you in your answer to Interrogatory #3, were any tests conducted by you to determine potential health hazards of these products? For each such test, please state:

- a. date of tests;
- b. names, addresses and job titles of individuals conducting such tests;
- c. results, including specific diseases or parts of body found to be affected.

Answer No. 6

Monsanto objects to this interrogatory on the grounds that it seeks information not relevant to the subject matter of this action and which is not reasonably calculated to lead to the discovery of admissible evidence.

Without waiving this objection, Monsanto states that it has not located any records which indicate that a test of the type inquired about was conducted.

Interrogatory No. 7

Please identify any documents relating to the testing of products listed in the answers to Interrogatories #5 and #6.

Answer No. 7

Not applicable.

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Interrogatory No. 8

As a result of any testing described in your answers to Interrogatories #5 and 6, were any changes made in your methods of manufacture, distribution, marketing, sale, purchase or usage? For each such change:

- a. briefly describe the change, including identification of the plants in which such change was made;
- b. state the dates of such change;
- c. identify any documents evidencing such change.

Answer No. 8

Not applicable.

Interrogatory No. 9

After releasing the products listed by you in your answer to Interrogatory #2, were any tests conducted by you to determine potential health hazards of these products? For each such test, please state:

- a. date of tests;
- b. names, addresses and job titles of individuals conducting such tests;
- c. results, including specific diseases or parts of body found to be effected.

Answer No. 9

In 1949, patch tests with Monsanto's Vinyl Chloride Film were conducted at the Barnard Free Skin and Cancer Hospital in St. Louis, Missouri. No positive reactions were observed in the skin of 230 human volunteers. The report was signed on December 8, 1949 by Lawrence Halpers, M.D. and approved by Richard Weiss, M.D.

In 1955, Monsanto received a report from Hazelton Laboratories in Falls Church, Virginia on the acute oral studies in young calves using vinyl tape. The transmittal letter was signed on March 9, 1955 by Dr. R.W. Fogleman of Hazelton and he concluded that no toxicity resulted from the administration of vinyl tapes.

Monsanto jointly funded a testing program on vinyl chloride that was conducted under the auspices of the Manufacturing Chemists Association (MCA) which has been renamed the Chemical Manufacturers Association (CMA). Monsanto contributed to the following studies:

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- (1) Chronic Vapor Inhalation Toxicity Study with Vinyl Chloride. Treatment started September, 1973 at Industrial Bio-Test Laboratories, Inc. and animals were maintained for 24 months. Interim results were presented at the March 5, 1975 meeting of the International Academy of Pathology and the May 17, 1976 meeting of the American Industrial Hygienists Association. A presentation by M.L. Keplinger of the results was made to the MCA on April 18, 1976. The individuals in this study included: M.L. Keplinger, J.W. Goode, D.E. Gordon, and J.C. Calandra.
- (2) Teratology study with VC. This study was proposed to MCA in a November 28, 1973 meeting. The study was conducted by the Dow Chemical Company. A protocol was presented at a January 29, 1974 meeting. A protocol for continued studies is dated December 16, 1974. The study was completed by September 1975. A presentation of the results was made to the MCA on April 28, 1979 by B.A. Schwetz. Results were presented at the 1975 Society of Toxicology meeting (B.A. Schwetz, B.K.J. Leong, F.A. Smith, M. Balmer, and P.J. Gehring. Toxicol. Appl. Pharmacol 33:134, Abstract No. 29, 1975). No teratogenic effects were seen in offspring of pregnant mice, rats, and rabbits exposed to 500 ppm of VC.
- (3) Metabolism study with VC. This study was proposed to MCA in a November 18, 1973 meeting. The study was conducted at the Dow Chemical Company. A protocol was presented at a January 29, 1974 meeting. A protocol for continued studies is dated December 16, 1974. A presentation of the results was made to the MCA on April 28, 1976 by P.G. Watanabe. Individuals who participated in this study include P.J. Gehring, P.G. Watanabe, and R.E. Hefner. The results of this study show that the metabolism of VC is not linearly related to dose.

Interrogatory No. 10

After the purchase or use of the products listed by you in your answer to Interrogatory #3, were any tests conducted by you to determine potential health hazards of these products? For each such test, please state:

- a. date of tests;
- b. names, addresses and job titles of individuals conducting such tests;
- c. results, including specific diseases or parts of body found to be effected.

Answer No. 10

Monsanto has not located any records which indicate that a test of the type inquired about was conducted.

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Interrogatory No. 11

Please identify any documents relating to the testing of products listed in your answer to Interrogatories #9 and #10.

Answer No. 11

- a) with respect to 1949 patch tests identified in interrogatory #9, Monsanto has correspondence from The Barnard Free Skin and Cancer Hospital dated 12/8/49 and 12/21/50.
- b) with respect to the 1955 report of Hazelton Laboratories identified in #9, Monsanto has correspondence dated 3/2/55 and 3/9/55.
- c) with regards those studies conducted by the CMA identified in #9 in which Monsanto participated, the reports are generally available in the public literature. Monsanto has located some miscellaneous correspondence pertaining to its participation which will be made available for inspection. No documents have been located applicable to Interrogatory #10.

Interrogatory No. 12

Please list all publications, including reports, articles, papers, books, copies of speeches, correspondence and any other written material or documents which you received or were otherwise aware of prior to 1980, relating to possible health hazards of PVC and/or VC. For each publication or document, please state:

- a. Title;
- b. author;
- c. date and place of publication;
- d. summary of conclusions.

Answer No. 12

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, it appears to require Monsanto to perform outside research, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving the foregoing objection, Monsanto states that as a chemical manufacturer it makes efforts to keep current as to the results of any research or other studies which are of interest to the chemical industry generally, including studies relating to the health effects of exposure to chemicals. Currently, Monsanto has thousands of employees who make such efforts and there have been many who made such efforts in the past. Given this, it would be a near impossible task to formulate a response to the inquiry made.

Interrogatory No. 13

For all products listed in the answers to Interrogatories #2 and #3, please identify all sales and marketing materials, directions for use, and warnings of health hazards accompanying such products. For each such material, please state:

- a. its name or description;
- b. the name, address, and present job title, if known, of the person or persons who prepared it;
- c. the media used to disseminate it;
- d. the dates when the material was used to accompany the product.

Answer No. 13

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. All such material is irrelevant because Mr. Cullinan was an employee of Monsanto, not a customer.

Without waiving its objection, Monsanto states that it communicated frequently on health related issues with its employees, the union and, as appropriate, to the government.

Interrogatory No. 14

For each claim made against you by an employee of yours, an employee of another entity, or a consumer of any product listed in your answers to Interrogatories #2 and #3, prior to 1980, for damages, workman's compensation, or employee benefits, due to injuries or illnesses allegedly related to PVC and or VC, please state:

- a. Name of claimant;
- b. the type of claim; (e.g., workman's compensation, product liability);
- c. the nature of the injury or illness alleged;
- d. the relation of the claimant to you (employee, employee of other entity, consumer);
- e. the date and place the claim was made;
- f. resolution of claim (including amount of compensation paid by you, or your insurance carrier, if any, and means of determining such amount (arbitration, decision by an administrative body, settlement, judgment, etc.);

- g. name of insurance carrier, if any;
- h. name and address of claimant's attorney;
- i. identification of any documents evidencing resolution and payment of the claim.

Answer No. 14

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Interrogatory No. 15

With the knowledge gained from the documents, tests, reports, and claims detailed in your answers to Interrogatories #5 through #12, what did you do to eliminate or reduce dangers of illness and injury from PVC and/or VC? Please include changes in composition or packaging, warnings and recommendations to users, workplace exposure levels, and dates of such changes.

Answer No. 15

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving the foregoing objection, Monsanto states that as a chemical manufacturer it sponsors studies of its products and makes efforts to keep current as to the results of any research or other studies pertaining to the products it manufactures. Relevant and useful information gained from these inquiries is incorporated in its manufacturing processes. Please see Answer No. 16.

Interrogatory No. 16

Please identify those agents or employees of yours who were responsible for making the changes described in your answer to Interrogatory #15.

Answer No. 16

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that the following individuals were involved in plant safety at Springfield during the relevant period: Robert Cummings, Paul Bureau, Gar Fletcher, and Chet Strzepa.

Interrogatory No. 17

Has any agent or employee of yours, prior to 1980, gone into the field and observed, counted, or otherwise ascertained, or attempted to ascertain PVC and/or VC dust and/or vapor and/or fiber levels where PVC and or VC products manufactured, produced, sold, marketed, distributed or purchased by you were used? If so, please:

- a. State when, where and by whom such observations were made;
- b. describe the methods used and the results obtained;
- c. describe any actions undertaken by you as a result of your observations; and
- d. identify all documents concerning or relating to such evaluations and resulting actions.

Answer No. 17

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. This inquiry is irrelevant because Mr. Cullinan was an employee of Monsanto not a customer and the alleged exposure is stated to have occurred during his employment.

Interrogatory No. 18

For each insurance carrier for worker's compensation, occupational disease compensation, employee accident, sickness, health, and/or disability compensation, and other liability insurance, for the period 1953 to 1980, please state:

- a. the name of such carrier;
- b. the time period of the coverage provided;
- c. the type of coverage provided;
- d. the amount of coverage;
- e. identify all documents evidencing such coverage.

Answer No. 18

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection Monsanto states:

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- a) Liberty Mutual Insurance Company
The Travelers Insurance Companies
Insurance Company of North America
- b) Liberty Mutual until 3/1/71
Travelers from 3/1/71 to 4/1/78
INA 4/1/78 to present
- c) General Liability
- d) \$2.1 Million
- e) Liberty Policy No. LPI-641-004287
Travelers Policy TR-NSL-951202
INA Policy ISG1107

While Monsanto expects no judgment to be rendered against it, it submits that it has sufficient insurance in force and available to cover any judgment which might reasonably be expected to be obtained by the plaintiffs against it.

Interrogatory No. 19

Have you been investigated, or participated in an investigation, by any governmental or independent agency with regard to dangers of death or injury or other health hazards relating to PVC and/or VC products used, manufactured, produced, marketed, sold or distributed by you. If so, please state:

- a. Name of such investigating agency;
- b. its address;
- c. when such investigation took place;
- d. whether or not there was a stenographic or written record;
- e. identify the nature of such record and the person having possession of it;
- f. whether or not there was a final report;
- g. identify such report;
- h. briefly state the conclusions of each such investigation.

Answer No. 19

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it has had and continues to have many formal and informal relationships with various governmental agencies, trade associations, industry groups and universities. Please see Answer No. 69.

Interrogatory No. 20

Have you ever recalled, or has any government agency ever seized or ordered a recall, of any PVC and/or VC products purchased by, supplied to, supplied by, or sold by you, or any part of a shipment of such products? If so, please state:

- a. the product recalled or seized;
- b. the date of such recall or seizure;
- c. the reason for such recall or seizure;
- d. in the case of a government agency, the name of the agency ordering the seizure or recall;
- e. identification of any written memoranda or other document relating to the seizure or recall.

Answer No. 20

Monsanto is unaware of any governmental agency product seizure or recall of the type inquired about.

Interrogatory No. 21

Have you at any time advised any governmental agency or been advised by any governmental agency of the dangers of using, handling or being exposed to PVC and VC products, vapors, dust, or fibers? If so, please state:

- a. The manner of such advice;
- b. when given;
- c. to whom, giving name, address, telephone number, and job title;
- d. identification of any documents relating to such advice.

Answer No. 21

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it has had and continues to have many formal and informal relationships with various governmental agencies. Due to the passage of time and Monsanto's record retention schedule, it is unable to determine whether it was ever advised or whether it provided advice about alleged dangers of exposure to PVC or VC. As a chemical manufacturer, Monsanto makes efforts to keep current on all laws and governmental regulations which might be applicable to any of its products.

Interrogatory No. 22

Have you ever consulted experts in the defense of any claim made against you for injury or death from exposure to PVC or VC products? If so, please state:

- a. The name, business and home addresses, and business and home telephone numbers of such experts;
- b. their fields of expertise;
- c. whether you were furnished with a written report;
- d. please identify any such report.

Interrogatory No. 22

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. In addition, this interrogatory seeks information which is inappropriate and nondiscoverable under Fed. R. Civ. P. 26.

Interrogatory No. 23

Has any employee or agent of your corporation ever testified before any governmental agency or body regarding injury or death from exposure to PVC or VC products? If so, please state:

- a. The name, business and home addresses, and business and home telephone numbers of the persons giving such testimony;
- b. the governmental agency or body before which such testimony was given and the dates of such testimony;
- c. whether you prepared a written statement of your position and if so, who prepared such statement and the statement's present location;
- d. whether a transcript was made of the testimony given;
- e. whether a final report was made by the governmental agency;
- f. please identify any such transcript or report.

Answer No. 23

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

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Without waiving its objection, Monsanto states that it has had and continues to have many formal and informal relationships with various governmental agencies. Due to the passage of time and Monsanto's record retention schedule, it is unable to determine whether it was ever advised or whether it provided advice about alleged dangers of exposure to PVC or VC as inquired about.

Interrogatory No. 24

For each officer or agent named in answer to Interrogatory #23 who has information, knowledge or experience regarding the existence or possibility of danger to health by reason of exposure to PVC and/or VC, please state:

- a. The name;
- b. business and home addresses and telephone numbers;
- c. the present whereabouts of such person;
- d. whether such person ever expressed to you an opinion or belief that warning or notification should be given to users of PVC or VC products;
- e. if such person prepared any written memoranda, records, or other documents relating to his opinion or belief, please identify such written material.

Answer No. 24

See Answer No. 23.

Interrogatory No. 25

For any trade organization or association of manufacturers, or sellers of PVC or VC products, of which you were a member at any time, please state:

- a. The name;
- b. its address and telephone number;
- c. the dates of your membership;
- d. the officers or agents who represented your corporation in such organization;
- e. any publications produced by such organization relating to the possible dangers of PVC or VC products;
- f. all meetings held by the association or organization in which you participated which concerned or related to the consequences of PVC and/or VC exposure and/or VC exposure and/or appropriate workplace exposure levels.

Answer No. 25

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it is impossible to respond to the interrogatory as phrased due to the fact that the information called for was contained in records which have been disposed of in the regular course of business. Monsanto, as do many of its employees, belongs to many organizations such as:

Chemical Manufacturing Association
American Chemical Society
American Institute of Physics
Chemical Council of Missouri
National Association of Manufacturers
Washington Business Group on Health

It would be unduly burdensome to make the inquiry of Monsanto employees necessary to further answer this interrogatory.

Interrogatory No. 26

Did any officer or agent of yours correspond in writing with any officer or agent of any trade organization or association named in your answer to Interrogatory #25, or any other corporation engaged in the manufacturing, selling, marketing, or distribution of PVC or VC products, concerning possible danger or exposure to PVC or VC? Please identify any such correspondence or documents relating to such correspondence.

Answer No. 26

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Due to the passage of time and Monsanto's record retention policy, records of correspondence of the type inquired about no longer exist. Monsanto has made and will continue to make efforts to discover whether any such documents exist in any form and, if necessary, will supplement this response.

Interrogatory No. 27

Please state all facts and opinions upon which you will rely to support your claim that decedent's injuries were caused by one or more of his fellow servants.

Answer No. 27

Monsanto objects to this interrogatory as calling for information protected by the attorney-client and work product privileges. Discovery in this action is ongoing. To date many facts have been uncovered; equally available to all parties. Proper presentation of Monsanto's case demands that its counsel sift the relevant from the irrelevant. This interrogatory unduly interferes with this process. Which facts Monsanto will ultimately rely upon or how these facts will be used is privileged information, not the proper subject of discovery.

Interrogatory No. 28

Please state all facts and opinions upon which you will rely to support your claim that the negligence of decedent was greater than the negligence, if any, of the various defendants.

Answer No. 28

See Answer No. 27.

Interrogatory No. 29

Please state all facts and opinions upon which you will rely to support your claim that the decedent and/or others abused, misused and abnormally used any PVC and VC products with which the decedent may have been in contact.

Answer No. 29

See Answer No. 27.

Interrogatory No. 30

Please state all facts and opinions upon which you will rely to support your claim that the decedent and/or others abused, misused and abnormally used any PVC and VC products with which the decedent may have been in contact.

Answer No. 30

See Answer No. 27.

Interrogatory No. 31

Please state all facts and opinions upon which you will rely to support your claim that decedent's injuries were caused by the conduct of others over whom you had no control or opportunity to control.

Answer No. 31

See Answer No. 27.

Interrogatory No. 32

Please state all facts and opinions upon which you will rely to support your claim that injuries suffered by the decedent were the result of other intervening and supervening causes for which you were not responsible.

Answer No. 32

See Answer No. 27.

Interrogatory No. 33

Please state all facts and opinions upon which you will rely to support your claim that the risks of the PVC and VC products used by your employees were at all relevant times unknown and scientifically unknowable.

Answer No. 33

See Answer No. 27.

Interrogatory No. 34

Please state all facts and opinions upon which you will rely to support your claim that the reaction of the decedent to PVC and VC fumes was idiosyncratic and entirely unforeseeable.

Answer No. 34

See Answer No. 27.

Interrogatory No. 35

Please state when you first became aware of the following reports and studies:

- a. A 1930 study published in Public Health Reports which states that VC vapors cause lung damage in animal experiments;
- b. a 1960 study published in The American Industrial Hygiene Association Journal which reported that VC vapors cause lung damage in animal experiments;
- c. a 1961 study performed by defendant Dow which disclosed liver damage from VC exposure;
- d. a 1961 study published in The American Industrial Hygiene Association Journal which reported liver and kidney damage from VC exposure in animal experiments;
- e. a 1970 study for P.L. Viola which reported an association between VC exposure and lung cancer;

- f. a 1974 article published in The Journal of The American Medical Association which linked VC and PVC to cancer of the liver and to other liver diseases, including portal fibrosis;
- g. a 1975 article in the Annals of the New York Academy of Sciences reporting respiratory impairment among workers at a PVC plant;
- h. a 1975 study in the Annals of the New York Academy of Sciences associating VC and PVC inhalation with cancer of the lung, liver, brain and skin;
- i. a 1976 study in the Annals of the New York Academy of Sciences reporting excess deaths from cancers of the lung, liver, lymphatic and central nervous systems among VC and PVC workers;
- j. a 1978 NIOSH study reporting an excess of digestive and genito-urinary cancers among workers at Monsanto's Springfield plant.

Answer No. 35

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. In addition, Monsanto objects to this interrogatory on the grounds that the subject reports and studies are not identified with sufficient specificity or accuracy to allow it to locate them.

Without waiving its objection, Monsanto states that as a chemical manufacturer it makes efforts to keep current as to the results of any research or other studies which are of interest to the chemical industry generally, including studies relating to the health effects of chemical exposure. It is likely, though not certain, that various employees of Monsanto became aware of the mentioned studies at or near the time they were published. Due to the passage of time, the absence of records, and the multitudinous changes in personnel, it is impossible to be more specific.

Interrogatory No. 36

For all correspondence or other documents sent or received by you, to or from the Chemical Manufacturers Association (formerly known as The Manufacturing Chemists Association), or any member thereof, concerning or relating to the 1970 study by P.L. Viola concerning a possible link between VC exposure and cancer in laboratory animals, please identify each such document.

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Answer No. 36

Due to the passage of time and Monsanto's record retention policy, records of correspondence of the type inquired about no longer exist. To date, Monsanto has not located any correspondence of the type inquired about. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement this response if necessary.

Interrogatory No. 37

For all internal memoranda, correspondence or other documents concerning or relating to the 1970 study by P.L. Viola concerning a possible link between VC exposure and cancer in laboratory animals, please identify each such document.

Answer No. 37

Monsanto objects to this interrogatory on the grounds that is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection Monsanto states that due to the passage of time and its record retention policy, it is likely that the bulk of documents of the nature inquired about no longer exist. To date, Monsanto has located the following:

12/18/72	letter by E.P. Wheeler
12/24/74	memorandum re: Goodrich cancer cases
1/25/74	letter by E.P. Wheeler
7/22/74	memo by E.P. Wheeler
8/24/73	memo from George Roush
?	MCA Press Release

Interrogatory No. 38

For all correspondence or other documents sent or received by you, to or from the Chemical Manufacturers Association (hereafter "CMA") (formerly known as The Manufacturing Chemists Association), or any member thereof, concerning or relating to a 1973 study submitted to the Chemical Manufacturer's Association which associated VC exposure to cancers of the respiratory systems, liver and lymphatic systems, please identify each such document.

Answer No. 38

Monsanto objects to this interrogatory on the grounds that is is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

UCC 085933

Without waiving its objection, Monsanto states that due to the passage of time and Monsanto's record retention policy, records of correspondence of the type inquired about no longer exist. To date, Monsanto has not located any correspondence of the type inquired about. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement this response if necessary.

Interrogatory No. 39

For all internal memoranda, correspondence or other documents concerning or relating to actions taken or communications made by the CMA concerning the dangers or lack of dangers from PVC and/or VC exposure, please identify each such document.

Answer No. 39

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that due to the passage of time and Monsanto's record retention policy, records of correspondence of the type inquired about no longer exist. To date, Monsanto has not located any correspondence of the type inquired about. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement this response if necessary.

Interrogatory No. 40

Please identify any and all studies sponsored or performed by the CMA concerning or relating to possible health hazards, or lack thereof, from exposure to PVC or VC, of which you became aware prior to 1980.

Answer No. 40

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that as a chemical manufacturer it makes efforts to keep current as to the results of any research or other studies which are of interest to the chemical industry generally, including studies relating to the health effects of chemical exposure. It is likely, though not certain, that various employees of Monsanto became aware of any studies by the CMA at or near the time they were published. Due to the passage of time, the absence of records, and the multitudinous changes in personnel, it is impossible to be more specific.

Interrogatory No. 41

Please identify all warnings or other documents concerning or relating to the dangers or lack of danger of PVC and/or VC exposure provided by you to your employees at any time prior to 1980.

Answer No. 41

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Due to the passage of time and Monsanto's record retention policy, much of the inquired about material no longer exists. Thus, Monsanto is uncertain as to the nature and form of the information provided its employees during the relevant time period. To date Monsanto has located:

3/1/74 Memo to PVC Personnel from R.L. Bouget
3/5/74 Memo to PVC Personnel from R.L. Bouget
3/8/74 Memo re: PVC Work Practices
3/17/74 Memo re: PVC Work Practices
5/15/74 Memo re: VCM Health Issue

Interrogatory No. 42

Have you ever commissioned, contracted for, aided or participated in the testing of PVC or VC in regard to safety (including but not limited to carcinogenic effects)?

Answer No. 42

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, yes.

Interrogatory No. 43

If the answer to Interrogatory #42 is yes, please state or describe:

- a. The date or time period of each such testing activity;
- b. the adverse or dangerous effects for which the testing was being conducted;
- c. the nature, procedure and protocols employed in each such testing activity;

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- d. the identity of any person who joined, with, aided, contributed, collaborated, supported through financial, scientific, medical or other means, resources, or otherwise associated with or provided assistance to you regarding each such testing activity;
- e. the nature of any such assistance rendered to you or that you rendered to any other person;
- f. the results and conclusions regarding safety drawn from each such testing activity;
- g. the identity of each scientific, medical or management person employed by or under contract to you who was responsible at any time for conducting, supervising, analyzing the results from and/or deciding your policy in regard to each such testing activity;
- h. the data, opinions or other information resulting from any such testing activity regarding carcinogenic effects of PVC or VC in man or animal;
- i. the data, opinions or other information resulting from any such testing activity regarding deleterious effects of PVC or VC exposure in man or animal, other than cancer.

Answer No. 43

Monsanto listed various published studies conducted by Monsanto in response to Interrogatory No. 9. Each of these studies is available in the public literature and speaks for itself. In most instances the studies will contain information responsive to many subparts of this interrogatory. It is impractical and unduly burdensome to restate that information here.

Interrogatory No. 44

For each year you used, purchased, manufactured, marketed, or distributed PVC or VC products, please identify and state the specific responsibilities of and identify the immediate superior(s) of:

- a. Any person or persons responsible for overseeing the marketing of PVC and/or VC products;
- b. any person or persons responsible for overseeing the marketing of PVC and/or VC products within the state of Massachusetts;
- c. any person or persons responsible for overseeing the purchase of PVC and/or VC products within the state of Massachusetts;

- d. any person or persons responsible for overseeing the marketing of PVC and/or VC products;
- e. any person or persons responsible for overseeing the distribution of PVC and/or VC products;
- f. any person or persons responsible for overseeing the preparation and distribution of written material concerning PVC and/or VC products, including but not limited to, advertising instructions, warnings, directions for usage and scientific data;
- g. any person or persons responsible for overseeing the testing as to safety of PVC and/or VC products;
- h. any person or persons responsible for coordinating, with regard to PVC and/or VC products, the activities referred to in paragraphs a-f of this Interrogatory;
- i. any physicians and/or medical experts in your employ with responsibility related to your use, production, marketing, distribution and/or testing of PVC and/or VC products.
- j. any person or persons who acted as liaisons to any federal, state or local government agency or official in matters concerning or relating to the use, production, marketing, distribution or safety of such PVC and/or VC products.

Answer No. 44

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. Mr. Cullinan was an employee of Monsanto at its plant at Indian Orchard, Springfield, Massachusetts. He was not a customer.

Without waiving its objection, Monsanto states that the following individuals were involved in plant safety at Springfield during the relevant period: Robert Cummings, Paul Bureau, Gar Fletcher, ~~Chet~~ Strzepa. The plant physician was Dr. William E. ~~Nasrallah~~.

Interrogatory No. 45

As to each individual named in Interrogatory #44, please state:

- a. The department, group, and/or division of your company in which he or she was or is employed and his or her current or last known address;

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- b. If any such individual is no longer living, please state the name of the person currently holding his or her position in your company, or the most nearly analogous position in your company and his or her current address.

Answer No. 45

Robert Cummings
Director, Manufacturing Resins Division
800 N. Lindbergh
St. Louis, MO 63167

* { Paul Bureau
Superintendent of Laboratories and
Total Quality
730 Worcester
Springfield, MA 01151

Garr Fletcher
Retired
25 Bay State Road
Holyoke, MA 01040

Chet Strezepa
Org. Dev. and Employee Services Superintendent
730 Worcester
Springfield, MA 01151

Dr. William E. Nessel
Plant Physician
730 Worcester
Springfield, MA 01151

Interrogatory No. 46

Have you or any of your agents or employees used, relied upon or been aware of any tests and/or scientific studies not conducted by you and in which you did not participate, regarding the safety of PVC and/or VC exposure? If so, for each such test or study please state and identify:

- a. The person or persons or corporation or other entity who conducted the test or study;
- b. the nature and results of the test or study;
- c. the dates or time period of each such test or study;
- d. the date you first learned of such study or test;
- e. the title, volume number and date of any publication in which the results of each such test or study can be found.

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Answer No. 46

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. It is impossible to determine all information relied upon or known by all persons ever employed in any capacity by Monsanto.

Interrogatory No. 47

Have you at any time learned from any source, of any medical or scientific opinion, data or other information indicating or supporting the view that PVC and/or VC:

- a. Is or may be carcinogenic or otherwise harmful to animals.
- b. Is or may be carcinogenic or otherwise harmful to animals.

Answer No. 47

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it has become aware of various opinions concerning PVC and VC, but it does not necessarily agree with the opinions or acknowledge the validity thereof.

Interrogatory No. 48

If the answer to either part of Interrogatory #47 is yes, please state:

- a. The source of each opinion, data, or other information, including identification of the author or researcher involved in the company for which or institution at which said research was done, and state the title, volume, number and date of said publication in which said opinions, data and/or information may be found;
- b. date on which such opinion, data or information became known to you;
- c. the substance of all such data, information or opinion;
- d. any actions you took in response to such opinion, data or information, including but not limited to:
 - 1. Any testing and ascertaining of the accuracy, validity and implications of such opinion, data or information;

2. any advice to other companies or persons engaging in the development, testing, manufacture, and/or marketing of PVC and/or VC of such opinion, data or information;
3. any advice or communication with any government agency concerning such opinion, data, or information;
4. any changes you undertook in your manufacture, promotion, or marketing of PVC and/or VC as a result of learning such opinion, data or information;
5. any advice to physicians, patients, and/or the public of such opinion, data or information.

Answer No. 48

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

As a chemical manufacturer Monsanto endeavors to keep abreast of the current scientific literature relating to its products. These studies are available in the public literature. In most instances the studies will contain information responsive to many subparts of this interrogatory. It is impractical and unduly burdensome, due to the absence of records and the multitudinous changes in personnel, to be more specific.

Interrogatory No. 49

Have you at any time learned from any source of any medical or scientific opinions, data or other information, contradicting or refuting the view that PVC and/or VC:

- a. Is or may be carcinogenic or otherwise harmful to humans;
- b. is or may be carcinogenic or otherwise harmful to humans;

Answer No. 49

See Answer No. 47

Interrogatory No. 50

If the answer to either part of Interrogatory #49 is yes, please state:

- a. The source of such opinion, data, or other information, including identification of the author or researcher involved in the company for which or institution at which said research was done, and state the title, volume, number and date of said publication in which said opinions, data and/or information may be found;

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- b. date on which such opinion, data or information became known to you;
- c. the substance of all such data, information or opinion;
- d. any actions you took in response to such opinion, data or information, including but not limited to;
 - 1. Any testing and ascertaining of the accuracy, validity and implications of such opinion, data or information;
 - 2. any advice to other companies or persons engaging in the development, testing, manufacture, and/or marketing of PVC and/or VC of such opinion, data or information;
 - 3. any advice or communication with any government agency concerning such opinion, data, or information;
 - 4. any changes you undertook in your manufacture, promotion, or marketing of PVC and/or VC as a result of learning such opinion, data or information;
 - 5. any advice to physicians, patients, and/or the public of such opinion, data or information.

Answer No. 50

See Answer No. 48

Interrogatory No. 51

Please state whether you undertook to determine, alone or in conjunction with other persons, corporations, institutions or other entities, the relative merits or believability of any information described in your answers to Interrogatories #46-50.

- a. If not, please state why not;
- b. If so, please state and identify:
 - 1. The persons or persons responsible for said evaluation(s);
 - 2. the nature and results of said evaluation(s);
 - 3. the date or time periods during which said evaluation(s) was (were) conducted;
 - 4. any written reports and/or documents which were produced as a result of said evaluation(s), and state as fully as possible the results of said evaluation(s);

5. any change in your policies or practices with regard to the manufacture, marketing, sale or distribution of PVC and/or VC as a result of said evaluation(s).

Answer No. 51

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states: see Answers Nos. 9, 15, 19, and 46-50.

Interrogatory No. 52

Please identify the person or persons responsible for determining your policy regarding the providing of warnings to purchasers of your PVC and/or VC products from 1950 - 1980.

Answer No. 52

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. This inquiry is irrelevant as Mr. Cullinan was an employee of Monsanto, not a customer or purchaser.

Interrogatory No. 53

Please identify the person or persons responsible for determining your policy regarding the providing of warnings to your employees exposed to PVC and/or VC products from 1950 - 1980.

Answer No. 53

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence insofar as it seeks information relating to locations other than at the Indian Orchard plant.

Without waiving its objection, Monsanto states that the following individuals were so involved:

Gar Fletcher, Safety Superintendent

Bill Gabel, General Supt. PVC

Bob Bourget, General Supt. PVC

Plant Managers: Al Erdman
Jim Shriver

Hal Corbett
Ed Celette

Gerry Ellsworth

Interrogatory No. 54

Have you, or any of your officers, agents, employees or representatives, ever participated in any meeting, conference, or other gathering of scientists, other chemical company representatives, physicians, and/or federal officers or employees at which the safety of PVC and/or VC was a topic of discussion? If so, please state:

- a. The date or approximate time period and the location of the gathering;
- b. the topics of discussion;
- c. the person or persons representing you and their current or last known addresses, and whether they are still employed by you;
- d. the content and location of any written notes or reports concerning the substance of such gathering.

Answer No. 54

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome, and is not reasonably calculated to lead to the the discovery of admissible evidence.

Without waiving its objection, Monsanto states that due to the passage of time and its record retention policy, it no longer has any records from the relevant time period from which a response to this interrogatory can be drawn. Moreover, Monsanto has many formal and informal relationships with various governmental agencies, trade associations, industry groups and universities and thus it is virtually impossible to respond to this interrogatory as framed. Monsanto can state that it is probable that Monsanto employees have attended meetings at which the safety of PVC or VC was discussed.

Interrogatory No. 55

Prior to 1980 did you at any time have any wholly or partially owned subsidiary with names different from your present name which participated in the testing, production, manufacture, marketing, packaging, or distribution of PVC and/or VC products?

Answer No. 55

No.

Interrogatory No. 56

If the answer to Interrogatory #56 is yes, for each such subsidiary, please state:

- a. The name and address of each such subsidiary;

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- b. the nature of the subsidiary's relationship to you;
- c. each PVC/VC related activity or activities in which the subsidiary participated and the years during which it was engaged in said activity or activities;
- d. which other company of companies shared with you ownership of any such partially owned subsidiary, and what share of the subsidiary each parent company, including yourself, owned.

Answer No. 56

Not applicable.

Interrogatory No. 57

Do you presently contend that exposure to VC is not potentially carcinogenic to humans? If so, please state the facts you rely upon to support said contention.

Answer No. 57

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it is aware that exposure to VC under certain conditions has been associated with cancer in humans.

Interrogatory No. 58

Do you presently contend that exposure to PVC is not potentially carcinogenic to humans? If so, please state the facts you rely upon to support said contention.

Answer No. 58

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, yes. The published scientific literature does not associate exposure to PVC with cancer in humans.

Interrogatory No. 59

Please state the levels of exposure and duration to VC which you believe are potentially carcinogenic to humans. Identify all facts you rely upon to support your contention.

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Answer No. 59

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that because of the complexities of the problem and the many variables involved, Monsanto does not presently have a sufficient basis from which to state a belief as to the particular minimum levels of exposure to VC and duration which could be carcinogenic to all humans. Since human testing is not conducted, there is no scientifically based answer to this interrogatory. Certain exposure levels and potential human responses have been noted in publically available published literature

Interrogatory No. 60

Please state the levels of exposure and duration to PVC which you believe are potentially carcinogenic to humans. Identify all facts you rely upon to support your contention.

Answer No. 60

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, none. The published scientific literature does not associate exposure to PVC with cancer in humans

Interrogatory No. 61

For each year from 1950 to present, please state the PVC and VC exposure levels and guidelines which you maintained at your own facilities for the protection of your agents and employees exposed to PVC and/or VC, and please describe how such levels were maintained.

Answer No. 61

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

With respect to the Springfield plant, Monsanto states that it set and maintained exposure levels and guidelines in accordance with applicable federal and state regulations and current industrial health and hygiene data.

Interrogatory No. 62

Please identify the individual or individuals responsible for determining the exposure levels and guidelines stated in your answer to Interrogatory #61.

Answer No. 62

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that with regards the Springfield plant the following individuals were involved: Gar Fletcher and Archie Torrenzano.

Interrogatory No. 63

Please identify all documents relied upon to determine the PVC and VC exposure levels and guidelines stated in your answer to Interrogatory #61.

Answer No. 63

See Answer Nos. 61 & 62.

Interrogatory No. 64

For all products listed in your answer to Interrogatories #2 and #3, please state:

- a. The purpose for which such products were recommended;
- b. the quantities of each such product sold annually by you;
- c. the quantities of each such product purchased annually by you;
- d. the quantities of each such product used annually by you;
- e. any licenses or patents applied for and received in connection with such products;
- f. whether a file of employee, customer or user complaints, claims, or warnings was kept relating to such products, and the location and custodian of such file.

Answer No. 64

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence insofar as it seeks information regarding locations other than the Indian Orchard plant at which Mr. Cullinan worked.

Without waiving its objection, Monsanto states that due to the passage of time and Monsanto's record retention policy, records of the type inquired about no longer exist. To date, Monsanto has not located any records of the type inquired about. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement this response if necessary.

Interrogatory No. 65

For all products listed in your answer to Interrogatories #2 and #3, please state:

- a. Whether the products met industry and/or federal and/or Massachusetts safety standards;
- b. if so, please identify which standards;
- c. if so, please identify the individual or individuals in charge of meeting such standards.

Answer No. 65

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence. Mr. Cullinan was an employee of Monsanto, not a purchaser or consumer of its products.

Interrogatory No. 66

For all PVC and/or VC product supplied to the Monsanto Indian Orchard facility from 1950-1980, please state the identity of any and all shipping companies and distributors used to deliver such products and the applicable dates.

Answer No. 66

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it is unable to answer this interrogatory due to the unavailability of records.

Interrogatory No. 67

With regard to OSHA hearings concerning the effects of PVC and/or VC exposure, including but not limited to hearings held in February of 1974, please identify:

- a. All of your executives, employees or agents who attended these hearings;

- b. All memoranda, correspondence, reports, transcripts or other documents concerning or relating to these hearings.

Answer No. 67

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Given the passage of time and the unavailability of records, Monsanto is unable to respond to this inquiry. Discovery is ongoing and this response will be supplemented if necessary.

Interrogatory No. 68

With regard to meetings between representatives of the CMA and NIOSH officials concerning the effects of PVC and/or VC exposure, including but not limited to meetings held in June and July, 1973, please identify:

- a. All of your executives, employees or agents who attended these meetings;
- b. all memoranda, correspondence, reports, transcripts or other documents concerning or relating to these meetings;
- c. the particular topics of discussion and purposes of such meetings;
- d. your involvement in the decision of the MCA to advise Dr. Marcus Key of NIOSH that research the CMA possessed did not indicate any health problems serious enough to warrant government actions.

Answer No. 68

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Interrogatory No. 69

As regards a ~~July 1978~~ NIOSH study entitled "A Proportional Mortality Analysis of Chemical Plant in Massachusetts", please state and identify:

- a. all correspondence, internal memoranda and other documents concerning or relating to this study and to NIOSH's efforts to obtain your employees' employment and chemical exposure histories;
- b. the individual or individuals responsible for determining whether or not your would provide NIOSH with any or all data and information requested from you.

Answer No. 69

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection Monsanto states that inquiry into NIOSH's efforts should be made of NIOSH.

Interrogatory No. 70

Please identify all correspondence, internal memoranda and other documents concerning or relating to:

- a. any request by NIOSH or OSHA to you for information or data for use in studies or research concerning occupational illness;
- b. any request by any other governmental agency for information or data for use in studies or research concerning occupational illness;
- c. any request by a private individual or organization to you for information or data for use in studies or research concerning occupational illness.

Answer No. 70

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it has located the following documents responsive to this inquiry:

7/16/75	Letter from John N. Lewis to Paul Bureau	<i>Dr.</i> <i>Monsanto's</i> <i>Sign of LCB</i>
7/29/75	Letter from Bureau to Lewis	
8/6/75	Letter from Lewis to Bureau	
8/25/75	Letter from Bureau to Lewis	
9/9/75	Memo by Lewis	
9/10/75	Letter from Lewis to Bureau	
9/26/75	Letter from Bureau to Lewis	
1/9/76	Memo re: NIOSH meeting	
2/23/76	Letter from Bobby Craft to George Roush	
3/24/76	Letter from G.M. Ellsworth to John F. Finkles	
4/22/76	Letter Bureau to Pierre DeCoufle	
4/27/76	Letter Craft to Ellsworth	
5/6/76	Letter Bureau to Harold Bavley	
5/11/76	Letter Bavley to Bureau	
5/14/76	Letter Bureau to DeCoufle	
9/24/76	Letter from Robert Spiritas to Roush	
9/28/76	Letter Roush to Spiritas	
10/8/76	Letter from Karen Stanislawczyk to Bureau	

10/25/76	Letter Bureau to Stanislawczyk
11/1/76	Letter Ellsworth to Spiritas
12/6/76	Letter Spirtas to Ellsworth
12/8/76	Letter Spirtas to Roush
12/10/76	Letter Ellsworth to Spiritas
2/7/77	Letter Bureau to Stanislawczyk
2/18/77	Letter Frederick R. Johannsen to Stanislawczyk
2/25/77	Letter Bureau to Stanislawczyk
4/20/77	Letter Stanislawczyk to Bureau
5/31/77	Letter Bureau to Stanislawczyk
7/22/77	Letter Stanislawczyk to Johannsen
8/21/77	Letter Spirtas to Roush
9/2/77	Letter Bureau to Stanislawczyk
9/19/77	Letter Roush to Spirtas

Interrogatory No. 71

Please identify the individual or individuals responsible for determining whether or not you would comply with the requests for information listed by you in your answer to Interrogatory No. 70.

Answer No. 71

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Interrogatory No. 72

Please identify any and all documents which concern or relate to your decisions not to allow researchers into the Indian Orchard facility to gather information for studies concerning occupational illness from 1950-1980, including but not limited to your refusal to allow expert hired by the widow of Clarence Messier to visit the Indian Orchard facility.

Answer No. 72

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Interrogatory No. 73

Please identify all correspondence, internal memoranda and other documents which concern or relate to communications between you and Massachusetts state government officials or agents concerning:

- a. Studies, testing, or proposed studies or testing or cancer levels at your Indian Orchard facility;
- b. studies, testing, or proposed studies or t sting concerning occupational illness at your Indian Orchard facility.

Answer No. 73

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that to date, all documents of the type requested which have been located have been previously identified.

Interrogatory No. 74

Please identify all correspondence, internal memoranda and other documents which concern or relate to communications between you and the Massachusetts Bureau of Labor and Industry concerning levels of PVC and/or VC exposure at the Indian Orchard facility.

Answer No. 74

See Answer No. 70.

Interrogatory No. 75

Please identify any individual or individuals who communicated with Massachusetts state government officials or agents concerning:

- a. Studies, testing or proposed studies or testing, of cancer levels at your Indian Orchard facility;
- b. studies, testing or proposed studies or testing concerning occupational illness at your Indian Orchard facility;
- c. levels of PVC and/or VC exposure at the Indian Orchard facility.

Answer No. 75

See Answer No. 70.

Interrogatory No. 76

As regards your ~~1982~~ published study of mortality patterns at the Indian Orchard facility, please state and identify:

- a. The individual or individuals responsible for designing the study and, in particular, for deciding to analyze the Indian Orchard workforce as a whole without departmentalization;
- b. all correspondence, internal memoranda, and other documents concerning or relating to this study, including but not limited to the study's design and implementation.

UCC 085951

Answer No. 76

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

↓ Without waiving its objection, Monsanto states that there is no 1981 published study. A 1983 study was designed and carried out by Gary M. Marsh, Ph.D. Correspondence relating to this study occurred between 1979 and 1982 and most has been destroyed. Monsanto has located the following:

9/12/79	letter to Marsh
10/2/79	letter from Marsh
10/12/79	letter to Marsh
4/23/80	letter from Marsh
8/29/80	letter from Marsh
9/11/80	memo to J.L. Shriver from P.E. Bureau
9/19/80	letter from Marsh
10/1/80	letter from Marsh
12/16/80	letter from Marsh
1/20/81	letter from Gaffey
6/25/81	memo by Bureau
5/11/82	letter from Marsh
5/24/82	letter to Marsh

Interrogatory No. 77

As regards tests performed by you upon your employees to evaluate the consequences of PVC and/or VC exposure, please describe and identify:

- a. All documents concerning or relating to such tests;
- b. your motivation and purposes in performing such tests;
- c. to whom the results of such tests were provided;
- d. whether individual employees were provided with the results of tests performed upon them;
- e. what actions were taken by you as a result of such tests;
- f. the individual or individuals responsible for formulating and carrying out the policies and/or actions described in your answers to parts (b), (c), (d) and (e) of this interrogatory.

Answer No. 77

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

UCC 085952

Without waiving its objection Monsanto states: See Answer No. 105.

Interrogatory No. 78

Please identify and describe each instance in which you have disputed the results of studies of tests evaluating the health of your employees exposed to PVC and/or VC.

Answer No. 78

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Interrogatory No. 79

For each instance listed in your answer to Interrogatory No. 78, please identify:

- a. All documents concerning or relating to your decision to dispute the results of such studies or tests;
- b. all individuals involved in your decision to dispute the results of such studies or tests.

Answer No. 79

Not applicable

Interrogatory No. 80

As regards Monte Throdahl's 1974 letter to OSHA in which he stated that "We have found no evidence of any adverse health effects attributable to PVC or VCM exposure", please describe and identify:

- a. All facts and documents which supported Mr. Throdahl's assertion;
- b. all facts and documents which you were aware of at the time the letter was sent which did not support Mr. Throdahl's assertion;
- c. all correspondence, internal memoranda and other documents concerning or relating to the decision to make this assertion;
- d. all correspondence, internal memoranda or other documents which discuss or were written in connection with or response to the letter in which Mr. Throdahl made this assertion.

Answer No. 80

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that due to the passage of time and Monsanto's record retention policy, records of the type from which a response could be drawn no longer exist. To date, Monsanto has not located any records of the type inquired about. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement if necessary.

Interrogatory No. 81

Please describe your procedures for evaluating and acting upon employee complaints over working conditions in Buildings 84 and 85 from 1950-1980.

Answer No. 81

Supervision and Safety Department personnel would respond to employee concern. The concern would be evaluated and required, corrective actions taken.

Interrogatory No. 82

Please describe your procedures for the filing and retention of employee complaints over working conditions in Buildings 84 and 85 from 1950-1980, including but not limited to the present location of such file and its custodian.

Answer No. 82

No formal filing system was used.

Interrogatory No. 83

Please identify all correspondence, internal memoranda, public statements and other documents made or written by William Gaffey concerning the presence or absence of illness associated with chemical exposure among your employees.

Answer No. 83

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence insofar as it seeks information about locations other than the Springfield plant where Mr. Cullinan worked.

Without waiving its objection Monsanto states that no documents or public statements have been produced by Dr. Gaffey either about the health effects of exposure to VC or PVC, or about the health of workers at the Springfield plant with the following exceptions:

- a. Conclusions in a published 1974 study (Tabershaw, I.R. and W.R. Gaffey, Jour. Occup. Med. 16(1974);509-518).
- b. Bulletin Board announcement at Springfield plant in October 1981 in which the results of the Marsh study were summarized.
- c. A deposition taken on June 6-7, 1984 for hearing No. 49689-77 before the Massachusetts Industrial Accident Board.

Interrogatory No. 84

Please identify all facts and documents which supported any assertion made by William Gaffey that there was no evidence that employees at Indian Orchard had suffered cancer as a result of workplace chemical exposure.

Answer No. 84

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Monsanto cannot respond to the question as phrased.

Interrogatory No. 85

Please describe and identify all correspondence, internal memoranda and other documents concerning or relating to studies performed by Dr. Kenneth Roseman concerning illnesses among your Indian Orchard employees.

Answer No. 85

The Roseman Study 9/81.

Interrogatory No. 86

Please state how and when you became aware of the deaths of four PVC workers at B.F. Goodrich's Louisville, Kentucky facility from liver angiosarcoma as reported by B.F. Goodrich to NIOSH in January, 1974.

Answer No. 86

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence

Without waiving its objection, Monsanto states that it is unable to determine this but that it is likely that it learned at or near the time when B.G. Goodrich first reported the occurrence.

Interrogatory No. 87

Please state when and how you first became aware of any study which claimed to find a causal connection between VC and liver angiosarcoma in animals.

Answer No. 87

A vinyl chloride chronology prepared by the MCA, indicates that at a January 30, 1973 MCA meeting a brief oral progress report was presented on Dr. Maltoni's work in Europe. It is likely that Monsanto became aware of this study at or about this time.

Interrogatory No. 88

Please state when you first made public or informed any government official of your knowledge of a study which claimed to find a causal connection between VC and liver angiosarcoma in animals.

Answer No. 88

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Monsanto cannot respond to the question as phrased.

Interrogatory No. 89

Please state when your workers exposed to PVC and/or VC were first required to wear respirators, and state and identify:

- a. All documents concerning or relating to this requirement and the decisions to implement it;
- b. the reasons this requirement was implemented.

Answer No. 89

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that due to the passage of time and Monsanto's record retention policy, records of the type from which a response could be drawn no longer exist.

Interrogatory No. 90

Please identify all internal memoranda and other documents which discuss, concern or relate to the proposed use of respirators among Indian Orchard employees exposed to PVC and VC.

Answer No. 90

To date, Monsanto has located a November 29, 1974 Memo from D.L. Gendron re: PVC Task Force.

Interrogatory No. 91

For each model of respirator used by PVC/VC workers at Indian Orchard please describe and identify:

- a. The manufacturer and model of such respirators;
- b. the dates during which particular respirator models were used;
- c. any instructions, warnings or specifications which accompanied these respirators.

Answer No. 91

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that available records indicate that the 3M Companies' "Whitecap" system was ordered for use at the Indian Orchard Plant.

Interrogatory No. 92

Please identify all correspondence, internal memoranda and other documents which concern or relate to requests by KOSHA (the Committee for Occupational Safety and Health Action) to you for information concerning illnesses or levels of PVC and/or VC exposure among Indian Orchard workers.

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Answer No. 92

Monsanto states that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Inquiry is ongoing and Monsanto will supplement if required.

Interrogatory No. 93

Please identify all correspondence, internal memoranda and other documents which concern or relate to KOSHA requests that health monitoring and/or cancer studies be conducted by you.

Answer No. 93

Monsanto states that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Inquiry is ongoing and Monsanto will supplement if required.

Interrogatory No. 94

Please identify the individual or individuals responsible for acting as your liaison to KOSHA prior to 1980.

Answer No. 94

Monsanto states that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Inquiry is ongoing and Monsanto will supplement if required.

Interrogatory No. 95

As regards a memorandum written by J.S. Wonders dated November 1977 in which Wonders describes "the latest thinking of our Corporate Law, Corporate Personnel and Medical Departments", please state and identify:

- a. When and how this memoranda first came to the attention of Indian Orchard officers and employees;
- b. the individual or individuals responsible for implementing the policies described in the Wonder's memorandum at the Indian Orchard facility;
- c. all internal memoranda, correspondence and other documents discussing, concerning or relating to the Wonder's memorandum;
- d. whether any Indian Orchard officer, agent or employee had any involvement in the production of the Wonder's memorandum.

Answer No. 95

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it is unable to respond to this inquiry as it has been unable to locate officials at Indian Orchard with knowledge of this document.

Interrogatory No. 96

Please describe and identify all internal memoranda, correspondence and other documents concerning or relating to:

- a. requests from Dr. John Lewis to you for information and records to be used in studies evaluating illnesses among Indian Orchard workers;
- b. any decision made by you to dispute or criticize the methodology or findings of Dr. John Lewis' studies evaluating illnesses among Indian Orchard workers.

Answer No. 96

Monsanto states that due to the passage of time and its record retention policy, most correspondence of the type inquired about has been destroyed. To date Monsanto has located:

7/16/75	letter from Lewis	
8/6/75	letter from Lewis	<i>M's Super of Lab 2</i>
8/25/75	letter from Paul Bureau to Lewis	
9/10/75	letter from Lewis to Bureau	
9/26/75	letter from Bureau to Lewis	
1/15/76	Memo by Bureau	
2/3/76	letter Lewis to Dr. Decoufle	
2/23/76	letter Dr. Craft to G. Roush	

Interrogatory No. 97

Please identify the individual or individuals responsible for formulating your response to Dr. John Lewis' requests for information and records to be used in studies evaluating illnesses and deaths among Indian Orchard workers.

Answer No. 97

See Answer No. 96.

Interrogatory No. 98

As regards studies conducted by Robert Spirtas, Karen Stanislawczyk and Rose Kaminski ("the Spirtas studies") concerning illnesses and deaths among workers at the Indian Orchard facility, please describe and identify:

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- a. any correspondence, internal memoranda or other documents which discuss, concern or relate to these studies;
- b. the individual or individuals responsible for developing the methodology employed in these studies;
- c. the individual or individuals responsible for determining whether you would provide information and data requested by the researchers;
- d. any correspondence, internal memoranda or other documents concerning or relating to requests by the researchers for information and records to be used in the studies and your response to such requests.

Answer No. 98

Monsanto states that due to the passage of time and its record retention policy, most correspondence of the type inquired about has been destroyed. To date Monsanto has located:

- a) see Answer No. 70
- b) Methodology used in these studies was developed by NIOSH.
- c) All information requested by various members from NIOSH was supplied to them if possible by Monsanto employees. Those employees included those identified in the above correspondence.
- d) Correspondence related to these studies are included in the correspondence cited in item (a).

Interrogatory No. 99

Please describe and identify all internal memoranda, correspondence and other documents which concern or relate to your efforts to criticize or dispute the finding of the Spirtas studies evaluating illnesses and deaths among Indian Orchard workers.

Answer No. 99

Monsanto objects to this interrogatory as phrased and on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Monsanto states that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement if possible. To date Monsanto has located correspondence which indicates that on October 6, 1977, Roush ~~wrote to~~ Spirtas informing him of a

proportionate mortality study Monsanto had completed on the Indian Orchard plant. On October 12, 1977, Spirtas wrote to Roush discussing the results of the Monsanto study.

Interrogatory No. 100

Please identify and describe any studies performed by you concerning illnesses and deaths among Indian Orchard workers which you used as a basis for criticizing or refuting the Spirtas studies.

Answer No. 100

See Answer No. 99.

Interrogatory No. 101

For each study listed in your answer to Interrogatory #100, please state and identify:

- a. all documents concerning or relating to the methodology used in the study;
- b. all documents concerning or relating to how the methodology used in the study might or did differ from the methodology used in the Spirtas studies;
- c. the number of death certificates examined by you in doing each such study;
- d. the individual or individuals responsible for planning and carrying out each such study.

Answer No. 101

See Answer No. 99.

Interrogatory No. 102

As regards studies of Indian Orchard workers conducted by Dr. Gary Marsh, please describe and identify:

- a. all correspondence, memoranda and other documents exchanged between you and Dr. Marsh concerning or relating to the methodology and/or purpose and/or conclusions of such studies;
- b. all documents reflecting, concerning or relating to payments made by you to Dr. Marsh;
- c. the number of death certificates examined in doing each such study;
- d. the individual or individuals responsible for planning and carrying out each such study.

Answer No. 101

See Answer No. 76.

Interrogatory No. 102

As regards studies of Indian Orchard workers conducted by Dr. Gary Marsh, please describe and identify:

- a. All correspondence, memoranda and other documents exchanged between you and Dr. Marsh concerning or relating to the methodology, and/or purpose and/or conclusions of such studies;
- b. all documents reflecting, concerning or relating to payments made by you to Dr. Marsh;
- c. all documents reflecting, concerning or relating to any agreements or contracts made between you and Dr. Marsh.

Answer No. 102

See Answer No. 76.

Interrogatory No. 103

Please describe all payments or grants made by you at any time to Dr. Gary Marsh and identify all documents reflecting or relating to such payments or grants.

Answer No. 103

Monsanto states that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement if possible.

Interrogatory No. 104

Please describe and identify all correspondence, internal memoranda and other documents discussing, concerning or relating to communications by Dr. Kenneth Roseman to James Shriver in which Dr. Roseman stated that Gary Marsh's studies did not give a true picture of the risk of disease to Indian Orchard workers.

Answer No. 104

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto States that due to the passage of time and its record retention policy, records of the type from which a response could be drawn no longer exist. Monsanto will continue to make an effort to discover whether any such documents still exist in any form and will supplement if possible.

Interrogatory No. 105

Since the closing of your PVC and/or VC operations at Indian Orchard have you conducted medical screenings or examinations of your workers who had regularly been exposed to PVC and/or VC?

- a. If your answer is yes, please describe the nature of such screenings or exams, and describe the standards used by you to determine which workers would be examined;
- b. if your answer is no, please state why no such screenings or exams have been conducted.

Answer No. 105

Monsanto began its medical screening examinations for liver abnormalities, the so-called liver profile test, in January of 1974. The procedure used was that recommended by NIOSH. Workers exposed to vinyl chloride monomer including those whose work involved the polymerizations of vinyl chloride received the medical screening.

Interrogatory No. 106

Please describe and identify all tests and studies performed by you to determine concentration levels of PVC and/or VC during kettle-chipping operations in your PVC or VC departments.

Answer No. 106

See Answer No. 63.

Interrogatory No. 107

Please identify all documents concerning or relating to the concentration levels of PVC and/or VC to which kettle-chippers were exposed in your PVC and VC departments.

Answer No. 107

Undated Summary "Probable VCM Exposure Ranges"
Undated "Summary of Probable VCM Exposure Ranges"
Undated Table 1 VCM Spot Testing
Undated Table 2 VCM TWA Sampling

Interrogatory No. 108

Please describe and identify all correspondence between you and the Vinyl Chloride Research Project at the University of Kentucky.

Answer No. 108

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that it has not found any individual with knowledge who can respond to this interrogatory.

Interrogatory No. 109

Please describe and identify:

- a. All internal memoranda and other documents which discuss, concern or relate to your decision whether or not to engage in the health monitoring program developed by the Vinyl Chloride Research Project;
- b. the individual or individuals responsible for your decision whether or not to engage in the health-monitoring program developed by the Vinyl Chloride Research Project.

Answer No. 109

Not applicable.

Interrogatory No. 110

Please describe and identify all data collected by you:

- a. concerning or relating to the exposure of Indian Orchard workers to PVC and/or VC;
- b. to determine levels of PVC and/or VC exposure in the various departments of your Indian Orchard facility;
- c. concerning or relating to Paul Cullinan's levels of exposure to PVC and/or VC.

Answer No. 110

See Answer No. 63.

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Interrogatory No. 111

Please identify the individual or individuals responsible for collecting data and/or determining the levels of PVC and/or VC exposure among Indian Orchard workers and departments as described in your answer to Interrogatory No. 110.

Answer No. 111

See Answer No. 62.

Interrogatory No. 112

Please describe and identify all correspondence or other communications between you and Massachusetts state government officials:

- a. concerning or relating to studies performed by Dr. John Lewis which evaluated health problems among workers in the Indian Orchard facility;
- b. concerning or relating to any other studies or research concerning illnesses or deaths among workers at the Indian Orchard facility.

Answer No. 112

Monsanto objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and because it seeks information which is neither relevant, nor reasonably calculated to lead to the discovery of admissible evidence.

Without waiving its objection Monsanto states that it has located the following correspondence responsive to this inquiry:

5/11/76 Mr. Harold Bavley, Director, Div. of Occupational Hygiene for the Massachusetts Department of Labor and Industries, wrote to Paul Bureau.

5/76 P. Bureau wrote to Bavley

10 James Shriver wrote to Mr. Bayerle, OSHA Springfield Area Director in Springfield, Massachusetts, and Mr. Harold Bavley, Director of Occupational Hygiene, Commonwealth of Massachusetts.

113

Identify all correspondence and between Indian Orchard management and official Howard Smith:

relating to studies performed by Dr. John

Interrogatory No. 113
Please describe all
communications between
Massachusetts and
Indian Orchard management
and official Howard Smith:

a. c
d.

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- b. concerning or relating to the effects or levels of PVC and/or VC exposure upon Indian Orchard workers;
- c. concerning or relating to any studies -- proposed or carried out -- evaluating illnesses and/or deaths among Indian Orchard workers.

Answer No. 113

Monsanto has located no documents of the type inquired about.

Interrogatory No. 114

Please describe and identify all internal memoranda, correspondence and other documents concerning or relating to your decision to close down PVC operations at the Indian Orchard facility.

Answer No. 114

Monsanto states that the Springfield plant began producing PVC in the 1950's. However, by the early 1970's PVC production was a very marginal business economically and the decision was made to shut the operation down. Given the passage of time and Monsanto's record retention policy, documents of the type inquired about have been discarded.

Interrogatory No. 115

Please state what role concerns for the safety and health of workers played in your decisions to close down PVC operations at the Indian Orchard facility.

Answer No. 115

Monsanto objects to this interrogatory on the grounds that it is too vague to be answered in its present form. A multitude of considerations went into the decision to close the PVC operation at Indian Orchard and it is impossible to retrospectively enumerate these considerations and evaluate the net role they played.

Interrogatory No. 116

Please identify the individual or individuals responsible for evaluating whether or not the safety and health of workers warranted the closing down of PVC operations at the Indian Orchard facility.

Answer No. 116

Not applicable

Interrogatory No. 117

Please state when and how you first learned of research performed by the Dow Chemical Company in approximately 1961 which found liver injuries in laboratory animals exposed to VC, and identify and describe:

- a. all internal memoranda, correspondence, and other documents concerning or relating to this research;
- b. what actions you took as a result of learning of this research.

Answer No. 117

Monsanto objects to this interrogatory as vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor calculated to lead to the discovery of admissible evidence.

Without waiving its objection, Monsanto states that as a chemical manufacturer it makes efforts to keep current as to the results of any research or other studies which are of interest to the chemical industry generally and to incorporate relevant information into its manufacturing processes. Due to the passage of time and Monsanto's record retention policy, no documents of the type inquired about have been found.

Interrogatory No. 118

Please state when you first warned workers that there may be an association between cancer and PVC and/or VC exposure.

Answer No. 118

Monsanto objects to this interrogatory as vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor calculated to lead to the discovery of admissible evidence insofar as it inquires about locations other than the Springfield plant at which Mr. Cullinan worked.

Without waiving its objection, Monsanto states that it first warned workers of the association between vinyl chloride exposure and angiosarcoma in January, 1974.

Interrogatory No. 119

Please describe all actions taken by you between 1950-1980 to reduce the amounts of PVC and/or VC exposure of Indian Orchard workers and identify the individual or individuals responsible for instituting such actions.

Answer No. 119

Monsanto objects to this interrogatory as overly broad and unduly burdensome. As a chemical manufacturer, Monsanto endeavors to stay abreast of current knowledge about its products and incorporate such knowledge in its manufacturing processes. Individuals involved with plant safety at the Springfield plant have previously been identified.

Interrogatory No. 120

Please describe all actions considered, discussed or proposed by any of your officers, employees or agents to reduce the amounts of PVC and/or VC exposure of Indian Orchard workers, which were not implemented, and identify the individual or individuals responsible for the decision not to implement such actions.

Answer No. 120

Monsanto objects to this interrogatory on the grounds that it is too vague to be answered in its present form. As a chemical manufacturer, Monsanto endeavors to stay abreast of current knowledge about its products and incorporate such knowledge in its manufacturing processes. Numerous individuals and a multitude of considerations were involved in all safety decisions made at Indian Orchard. It is impossible to retrospectively enumerate all that went into such decisions.

Interrogatory No. 121

As regards inspection visits to the Indian Orchard facility by NIOSH, OSHA or other government officials between 1950-1980, including but not limited to, OSHA officials Immanuel Friedman's inspection of the Indian Orchard facility in July, 1974, please describe and identify:

- a. All internal memoranda, correspondence and other documents concerning or relating to the inspection visits;
- b. all internal memoranda, correspondence and other documents concerning or relating to the use and ventilation equipment in areas of PVC and/or VC exposure during the inspection visits;
- c. the individual or individuals responsible for coordinating the inspection visits.

Answer No. 121

Monsanto objects to this interrogatory as vague, overly broad, unduly burdensome, and because it seeks information which is neither relevant nor calculated to lead to the discovery of admissible evidence.

Without waiving its objection Monsanto states that due to the passage of time and its record retention policy, records of the type from which a complete response could be drawn no longer exist. Monsanto can state:

- a) all documents so far located responsive to this inquiry have been previously identified.
- b) due to records retention schedule, no such documents have been found.
- c) Paul Bureau, Gar Fletcher, Dalton Filpott, Janice Levine

Monsanto will continue to make an effort to discover whether further documents still exist in any form and will supplement if possible.

Interrogatory No. 122

Please identify any and all documents in your possession or under your control not previously identified in your answers to these interrogatories which concern or relate to dangers, health risks, or deleterious effects associated with exposure to PVC and/or VC.

Answer No. 122

Monsanto objects to this interrogatory as vague, overly broad, and unduly burdensome. Monsanto states that due to the passage of time and its record retention policy, many records of the type from which responses to these inquiries could have been drawn, no longer exist. Relevant documents that Monsanto has located have been identified.

Interrogatory No. 123

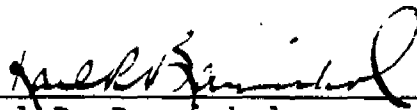
Please identify any and all documents in your possession or under your control not previously identified in your answers to these interrogatories which concern or relate to the lack of dangers, health risks or deleterious effects associated with exposure to PVC and/or VC.

Answer No. 123

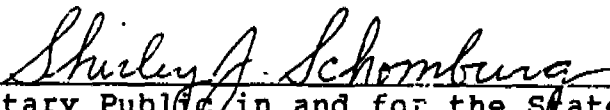
Monsanto objects to this interrogatory as vague, overly broad and unduly burdensome. Monsanto has made a good-faith effort to provide relevant answers. Its efforts, which are continuing, have been hampered by the lack of documents which were long ago discarded in the normal course of business. To the extent that relevant documents have been located they have been identified.

STATE OF MISSOURI)
) SS.
COUNTY OF ST. LOUIS)

Karl R. Barnickol, being first duly sworn, on his oath deposes and says that he is an Assistant Secretary of Monsanto Company and is duly authorized to act for and on behalf of Monsanto Company herein: that the foregoing Answers to Plaintiffs' Second Set of Interrogatories have been prepared by attorneys for Monsanto based on information obtained from documents and employees of Monsanto Company; that he has read the foregoing answers and such answers are true and correct to the best of his knowledge, information and belief.


Karl R. Barnickol

SUBSCRIBED AND SWORN to me this 20th day
of January, 1988.


Notary Public in and for the State
of Missouri

My commission expires:

Objections By:


Robert P. Powers
Melick & Porter
Eleven Arlington Street
Boston, Massachusetts 02116

Dated: January 2/, 1988

UCC 085970