



U.S. Department  
of Transportation  
National Highway  
Traffic Safety  
Administration

JUN 3 2003

400 Seventh Street, S.W.  
Washington, D.C. 20580

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Stacey J. Mobley  
Senior VP & Chief Administrative Officer  
& General Counsel  
DuPont De Nemours & Co.  
1007 Market Street  
Wilmington, DE 19898

NVS-213bby  
EA02-025

Dear Mr. Mobley:

The Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) is investigating allegations that failures of Speed Control Deactivation Switches have caused engine compartment fires in model year (MY) 1992 through 1997 Ford Crown Victoria, Lincoln Town Car, and Mercury Grand Marquis vehicles. To assist us with our investigation, ODI is requesting certain information from DuPont.

The subject switches function to provide a deactivation signal to the cruise control system when the vehicle brakes are applied. Analysis of field samples of the subject switches indicates that an internal seal/diaphragm made of a DuPont polymer may fail and allow brake fluid to enter the switch cavities where it could result in a conductive path to ground that may cause a fire. Documents provided to ODI by Ford indicate that the brake fluid may leak "through cracks in distorted, localized brittle portions of the internal Kapton<sup>®</sup> diaphragm."

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All MY 1992 through 1997 Ford-Crown Victoria, Lincoln Town Car, and Mercury Grand Marquis vehicles.
- **Subject recall:** NHTSA Recall No. 99V-124 (Ford Recall No. 99S15).
- **Subject switches:** Speed Control Deactivation Switches manufactured by Texas Instruments for use in the subject vehicles or vehicles covered under the subject recall.
- **Subject seal:** The internal seal/diaphragm in the subject switches that is made of a Kapton<sup>®</sup> polyimide film supplied by DuPont.



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- **DuPont:** DuPont De Nemours & Company's Engineering Polymers business group, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of DuPont (including all business units and persons previously referred to), who are or, in or after 1991, were involved in any way with DuPont's Kapton<sup>®</sup> as it related to the alleged defect in the subject vehicles:
  - a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits.
- **Alleged defect:** Any failure of the subject seals that results in brake fluid leakage inside the subject switches.
- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by DuPont, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document, which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available,

"document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by the manufacturer or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Please provide numbered responses to the following information requests. Insofar as DuPont has previously provided a document to ODI, DuPont may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After DuPont's response to each request, identify the source of the information and indicate the last date the information was gathered. If requested information is unavailable, so state and provide a brief explanation. Along with your written response, please provide this information in Microsoft Word 2000, or a compatible format, entitled "IR Response."

1. Describe DuPont's role and interaction with Ford and Texas Instruments in the design, material selection, specification, validation, and failure analysis of the subject seals since 1990.
2. Identify the specific type of Kapton<sup>®</sup> supplied by DuPont to Texas Instruments for use in the subject switches.
3. Provide copies of all guides and other documents related in any way to the suitability, durability and/or chemical resistance of Kapton<sup>®</sup> and of the subject seals.
4. Provide copies of all documents relating to, all communications between DuPont and Texas Instruments regarding the alleged defect in the subject seals. Organize the document copies in chronological order.
5. Provide copies of all documents relating to all communications between DuPont and Ford regarding the alleged defect in the subject seals. Organize the document copies in chronological order.

6. Provide copies of all technical literature by DuPont or in DuPont's possession relating in any way to the durability, chemical resistance, resistance to automotive brake fluid, resistance to water, brittle failure, fatigue failure, and Teflon<sup>®</sup> coating failure of the Kapton<sup>®</sup> material used in the subject seals.
  7. Describe, and provide copies of all documents relating to, any and all inspections, tests, and other analyses conducted by DuPont on field return or lab test specimens of the subject seals.
  8. Provide DuPont's assessment of the alleged defect in the subject seals. Include in your response the following information:
    - a. An assessment of the failure mechanism;
    - b. An assessment of the long term resistance of the subject seals to automotive brake fluid at 100°C, 120°C, and 150°C;
    - c. An assessment of the estimated service life of the subject seals in hours and pressure cycles when subjected to the conditions described in 8.b – include in your response the estimated service life at each condition at which tensile strength, tear strength (initial), tear strength (propagating), and ultimate elongation will be reduced by 50 percent of their initial values;
    - d. An assessment of the design factors of the subject switches that may influence the durability of the subject seals;
    - e. An assessment of the manufacturing factors of the subject switches that may influence the durability of the subject seals;
    - f. An assessment of the use factors of the subject switches that may influence the durability of the subject seals;
    - g. A description of factors that can contribute to brittle failure of the subject seals;
    - h. An assessment of factors that can contribute to failure of the Teflon coating of the subject seals; and
    - i. An assessment of factors that could influence crack orientation and propagation in the subject seals;
    - j. An assessment of the failure mechanisms of the subject seals specimens sent with this letter; and
    - k. Dupont's assessment of the condition, failure mechanism and material properties of the two included Kapton<sup>®</sup> seal sets.
  9. Provide the name and contact information of a DuPont representative that can answer technical questions concerning the subject of this letter.
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If DuPont cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, DuPont does not submit one or more requested documents or items of information in response to this information request, DuPont must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other

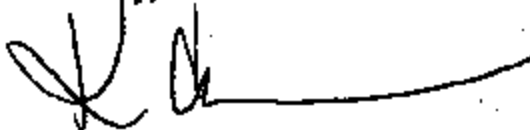
recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

DuPont's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by July 10, 2003. Please refer to EA02-025 in DuPont's response to this letter. If DuPont finds that it is unable to provide all of the information requested within the time allotted, DuPont must request an extension from Mr. Jeffrey L. Quandt at (202) 366-5207 no later than five business days before the response due date. If DuPont is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information DuPont then has available, even if an extension has been granted.

If DuPont claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, DuPont must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. DuPont is required to submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Bruce York of my staff at (202) 366-6938.

Sincerely,



Kathleen C. DeMeter, Director  
Office of Defects Investigation  
Enforcement

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Enclosures: Three sample Kapton® Seal Sets. One new set and two sets from failed Cruise Control Deactivation Switches.