

October 25, 2017

Via Fed Ex

Mr. Bruce B. York, Chief  
Medium/Heavy Duty Vehicle Division  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue SE, Room W45-302  
Washington, DC 20590

**Re: Dow Automotive Systems' Response to PE16-009**

Dear Mr. York:

Dow Automotive Systems' response to the National Highway Traffic Safety Administration's (NHTSA's) request for certain information to Dow as a supplier and in connection with Preliminary Evaluation (PE) 16-009 (the Request) is enclosed. Dow's Response is submitted following a diligent search of the files and information possessed by Dow's employees most likely to be knowledgeable about the subject of the Request, and pursuant to a review of Dow files (in electronic and hard-copy format) in which responsive information is likely to be kept in the ordinary course of business. Specifically, Dow has not attempted to retrieve from computer storage electronic files which have been overwritten or deleted, as such files are generally unavailable to the user and require technical expertise to retrieve.

Dow understands this Request to relate to brake fluid Dow supplied to Harley Davidson for MY 2008-2011 motorcycles equipped with ABS brakes and to cover the time frame: 2008 through the current date. The brake fluid that is the subject of the Request is a specific formulation Dow refers to internally as "DBF-460." Dow did not sell or distribute this specific brake fluid formulation directly to Harley Davidson until the 2014 calendar year. Dow understands that Harley Davidson purchased some quantity of DBF-460 from third party suppliers during years preceding 2014. Dow does not sell or distribute this specific brake fluid formulation to other motorcycle or automobile OEMs in the United States. The vast majority of Dow's sales of this product are to aftermarket sellers and servicers. Dow has made a substantial effort to provide thorough and accurate information based on its interpretation of the Request and would be pleased to meet with the Agency to discuss Dow's Response to this Request.

As requested, numbered responses to the Agency's specific questions are set forth below. After each numeric designation, Dow has set forth verbatim the request for information, followed by Dow's Response. Dow's responses were gathered and provided from the following departments within Dow: R&D/TS&D (research and development/technical service and development), Supply Chain, and Production. Information was gathered between the date Dow

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received the Agency's Request and October 24, 2017. Where documents are not self-explanatory, the production of documents is accompanied by explanation.

Dow considers the information being submitted in certain attachments to this Response to be confidential pursuant to 5 U.S.C. § 552(b)(4) and protected from disclosure pursuant to 18 U.S.C. § 1905. Thus, and in accordance with the requirements of 49 CFR Part 512, we are submitting a confidentiality request and all the required supporting information and materials to the NHTSA's Office of Chief Counsel contemporaneously with this submission. Dow requests that this confidential information not be released to the public. In accordance with the regulations, we are submitting a complete copy of this response as well as a redacted copy.

If the NHTSA seeks further information regarding Dow's Response, please direct all written notices or requests to me or Thomas P. Branigan at Bowman and Brooke LLP, 41000 Woodward Ave., Suite 200 East, Bloomfield Hills, MI 48304 and/or to Kevin O'Riordan, Sr. Counsel, Dow Automotive Systems, 1501 Larkin Dr., 200 Larkin Bldg., Midland, MI 48674.

Sincerely,

BOWMAN AND BROOKE LLP



Jodi Munn Schebel  
Partner

BOWMAN AND BROOKE LLP



Thomas P. Branigan  
Managing Partner

Enclosures

LE/JMS

cc: Kevin O'Riordan, Esq. (w. encl.)

**DOW AUTOMOTIVE SYSTEMS' ("DOW") RESPONSE TO  
NHTSA's REQUEST RE PE16-009**

**REQUEST NO. 1:** State the quantity of the subject component that Dow has manufactured for sale or lease in the United States. Additionally, state the percentage (or quantity) that was sold to:

- a. Harley Davidson;
- b. Other Original Equipment Manufacturers (OEM); and
- c. The service and aftermarket;

For subpart b, identify all other purchasers and provide contact information.

**RESPONSE:**

Dow's sales of DBF-460 to Harley Davidson are identified on the attached Exhibit A, labeled Dow's Response to Request No. 1, and marked as Confidential pursuant to Part 512. Dow does not sell directly to any Original Equipment Manufacturers ("OEMs") other than Harley Davidson, and those sales only began in 2014. Dow understands that Harley Davidson has purchased DBF-460 through a reseller since before 2008.

**REQUEST NO. 2:** State the number of each of the following, received by Dow, or of which Dow is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury or fatality;
- d. Reports involving a wheel-end fire where a brake failure is alleged;
- e. Property damage claims; and
- f. Third-party arbitration proceedings where Dow is or was a party to the arbitration; and
- g. Lawsuits, both pending and closed, in which Dow is or was a defendant or codefendant.

For subparts "a" through "g," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "g," provide a summary description of the alleged problem and causal and contributing factors and Dow's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

**RESPONSE:**

Dow does not possess information regarding the alleged defect in the subject vehicles identified in PE16-009.

**REQUEST NO. 3:** Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

- a. Dow's file number or another identifier used;
- b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- c. Vehicle owner or fleet name (and fleet contact person), street address, email address and telephone number;
- d. Vehicle's VIN;
- e. Vehicle's make, model and model year;
- f. Vehicle's mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether a crash is alleged;
- j. Whether a fire is alleged;
- k. Whether property damage is alleged;
- l. Number of alleged injuries, if any; and
- m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See the attached Data Collection file for a pre-formatted table that provides further details regarding this submission.

**RESPONSE:**

Dow does not possess information regarding the alleged defect in the subject vehicles identified in PE16-009.

**REQUEST NO. 4:** Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Dow used for organizing the documents. Describe in detail the search methods and search criteria used by Dow to identify the items in response to Request No. 2.

**RESPONSE:**

Dow does not possess information regarding the alleged defect in the subject vehicles identified in PE16-009.

**REQUEST NO. 5:** Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Dow has issued to any OEMs, dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also, include the latest draft copy of any communication that Dow is planning to issue within the next 120 days.

**RESPONSE:**

Dow does not possess information regarding the alleged defect in the subject vehicles identified in PE16-009.

**REQUEST NO. 6:** Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, “actions”) that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Dow. For each such action, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

**RESPONSE:**

Dow interprets this Request as seeking information regarding “assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations” that Dow has conducted on its DBF-460 product at the request of Harley Davidson between 2008 and the present. Dow has not reached any conclusion(s) that such actions “relate to, or may relate to, the alleged defect in the subject vehicles,” and expressly disclaims any such relationship. Dow is not currently undertaking any action, and does not have action planned or in the planning stages, related to the DBF-460 used by Harley-Davidson. The information requested here is contained in the attached Exhibit B, labeled Dow’s Response to Request No. 6 and marked as Confidential pursuant to Part 512.

**REQUEST NO. 7:** Describe Dow’s certification process for FMVSS 116. Your answer should include, but not be limited to: sampling rate, training of responsible personnel, maintenance and calibration of equipment used. Identify any packaged lots that failed to meet minimum standards for FMVSS 116. Describe Dow’s procedures for identifying, quarantine and disposal of any packaged lots that failed to meet FMVSS 116.

**RESPONSE:**

Dow sends one (1) gallon of DBF-460 to ABIC Testing Laboratories, Inc. (“ABIC”) for independent certification to the requirements of FMVSS 116. Dow will produce its certifications to FMVSS 116 for the years between 2008 and 2017. Dow does not possess information regarding

“sampling rate, training of responsible personnel, maintenance and calibration of equipment used” as such information would be maintained by ABIC. Dow has not received notice of any failures of DBF-460 pursuant to FMVSS 116. As such, Dow has had no reason to develop or implement a procedure for “identifying, quarantine and disposal of any packaged lots that failed to meet FMVSS 116.”

**REQUEST NO. 8:** Describe all modifications or changes made by, or on behalf of, Dow in the design, material composition, material supply, manufacturing process, manufacturing location, quality control, packaging, storage, or shipment of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The part number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when; and
- g. When the modified component was made available as a service component.

Also, provide the above information for any modification or change that Dow is aware of which may be incorporated into vehicle production within the next 120 days.

**RESPONSE:**

Dow has made eight (8) changes to DBF-460 since its inception. Changes made between 2007 and the present are reflected on the attached Exhibit C, labeled Dow’s Response to Request Nos. 8 and 9, and marked as Confidential pursuant to Part 512. Dow has no modifications to DBF-460 planned in the next 120 days.

**REQUEST NO. 9:** Provide a chronology of all formulation changes in the subject component since 2007.

**RESPONSE:**

A chronology of all formulation changes to DBF-460 from 2007 to present is contained in Exhibit C. As set forth above, Exhibit C is labeled Dow’s Response to Request Nos. 8 and 9, and is marked as Confidential pursuant to Part 512.

**REQUEST NO. 10:** When considering the subject component and Borate Esters, answer the following:

- a. Has the percentage of Borate Esters changed since 2007? If so, when and how?
- b. Describe how the amount of Borate Esters is controlled?

- c. What is the production tolerance for Borate Esters? Has it changed? If so, when and how?

**RESPONSE:**

- a. No.
- b. A master formulation card documents the recipe at weight percents. Further response is provided in Exhibit D, labeled Dow's Supplemental Response to Request Nos. 10 and 11, which is marked as Confidential pursuant to Part 512.
- The production tolerance for Borate Esters in DBF460 has not changed between 2007 and 2017. Dow's estimated production tolerance is  $\pm 2\%$ , where the target amount or over shots are normal.

**REQUEST NO. 11:** When considering the additive package (corrosion inhibitors and anti-oxidants), answer the following:

- a. Has the additive package changed since 2007? If so, when and how?
- b. Describe how the additive package is controlled?
- c. What is the production tolerance(s) for the additive package? Has it changed? If so, when and how?

**RESPONSE:**

- a. Yes. ISONOX® 132 was an acceptable alternative to LOWINOX® 624 in 2010. In 2012, both ISONOX® 132 and LOWINOX® 624 were replaced by BHT. An additive would be validated by comparing internal performance results and to a control.
- b. A master formulation card documents the recipe at weight percents. Further response is provided in Exhibit D, labeled Dow's Supplemental Response to Request Nos. 10 and 11, which is marked as Confidential pursuant to Part 512.
- c. The estimated production tolerance of  $\pm 2\%$  for additives in DBF460 has not changed between 2007 and 2017.

**REQUEST NO. 12:** Furnish Dow's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses; and
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning.

**RESPONSE:**

Dow has made no assessment of the alleged defect in the subject vehicle. With respect to its product, DBF-460, Dow has not identified any failure mechanism or mode that would cause Dow

to conclude that any causal relationship exists between DBF-460 and the defect alleged in PE16-009. As such, Dow has made no determination that DBF-460 creates any risk to motor vehicle safety within the meaning of 49 U.S.C. §30101 et seq.