

METRIC
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MIL-B-46176A  
 AMENDMENT 3  
14 September 1990  
 SUPERSEDING  
 AMENDMENT 2  
 5 August 1988

MILITARY SPECIFICATION

BRAKE FLUID, SILICONE, AUTOMOTIVE,

ALL WEATHER, OPERATIONAL AND PRESERVATIVE, METRIC

This amendment forms a part of MIL-B-46176A, dated 29 April 1986, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

- \* 1.2, line 12, delete "symbol" and substitute "symbol".

PAGE 2

- \* Table I, delete in its entirety and substitute:

“TABLE I. Container type and minimum fluid quantity.

Dash number (see 1.2)	Minimum fluid quantity Per unit container	Container type
01	437 mL (1 pint)	Metal can or plastic bottle
02	500 milliliter	Metal can or plastic bottle
03	946 mL (1 quart)	Metal can or plastic bottle
04	1 liter	Metal can or plastic bottle
05	3785 mL (1 gallon)	Metal can
06	18.9 L (5 gallon)	Metal can
07	208 liter (55 gallon)	Metal drum

PAGE 4

- \* 2.2, delete “THE BENDIX CORPORATION TEST PROCEDURE” and the next three lines following this heading.

3.1, line 6, delete “(see 6.3)” and substitute “(see 4.3.3 and 6.3)”.

- \* 3.2, line 3, delete “the sizes and styles specified (see 6.2)” and substitute “3785 mL (1 gallon), 18.9 L (5 gallon), and 208 L (55 gallon) size (see 6.2 and 6.9)”.

AMSC N/A

FSC 9150

DISTRIBUTION STATEMENT A. Approved for public release, distribution is unlimited.

MIL-B-46176A  
AMENDMENT 3

- \* 3.3, line 2, delete “3.4 through 3.16” and substitute “3.4 through 3.15”.

PAGE 7

- \* 3.16, delete in its entirety.
- \* 3.17, line 2, after “FED-STD-313” add “and 29 CFR 1910.1200 with 29 CFR preferred in case of conflict.” Delete the second sentence in its entirety.
- \* Line 4, delete “(see 6.3)” and substitute “(see 4.3.3 and 6.3)”.

PAGE 8

- \* After 3.18, add:

“3.19 Workmanship. The brake fluid shall be homogeneous and free of particulate matter and water droplets when examined visually at 20 - 30 °C.”

PAGE 9

- \* 4.3.1, line 3, delete “Acceptable quality level (AQL) equals 1.0 percent defective. ”

After 4.3.2., add:

“4.3.3 Qualification samples. The qualification sample shall be a five gallon sample of silicone brake fluid. The sample shall be plainly identified by a securely attached durable tag or label with the following information:

Sample for qualification inspection

BRAKE FLUID, SILICONE, AUTOMOTIVE, ALL WEATHER,  
OPERATIONAL AND PRESERVATIVE

Military specification number:

Name of manufacturer:

Product code number:

Date of manufacturer:

Submitted by: (name, date, and phone number)

The sample shall be accompanied by a Material Safety Data Sheet (MSDS) prepared in accordance with FED-STD-313, a report with the formulation and composition of the finished fluid, and a laboratory report showing the quantitative results of all tests required in this specification except the low temperature (-55 °C) stroking test. The sample and reports shall be forwarded to the activity responsible for the qualified product list: US Army Belvoir Research, Development, and Engineering Center, ATTN: STRBE-VFH, Fort Belvoir, VA 22060-5606. Information pertaining to the qualification of products may be obtained from that activity (see 6.3).”

- \* 4.5.2, delete lines 2 and 3 and substitute “tests specified herein except for the compatibility test (see 4.6.8) and the stroking test (see 4.6.12).”

MIL-B-46176A  
AMENDMENT 3

PAGE 10

4.6.1.4, line 1, delete “and use the air to relieve any bubbles” and add “Insert the air removal rod into the filler hole working it up and down to eliminate air from the test chamber and fluid.”

PAGE 11

4.6.5.2, line 21, after “from all the strips.” add “Polish with 00 steel wool.”

PAGE 12

- \* 4.6.5.3, line 21, delete “isylpropyl” and substitute “isopropyl”.

PAGE 13

4.6.10.1, after line 1, add “Expose two specimens of each type of rubber to the test fluid at each specified temperature.”

4.6.10.2, lines 1 and 2, delete the first sentence in its entirety. Line 5, delete “24 hours before measuring them” and substitute “24 hours. After stabilization, measure the specimens”.

4.6.10.3, lines 1 through 4, delete the first three sentences in their entirety and substitute “Use a straight-sided, screw top, round glass jar (RM-51) approximately 50 mm in diameter. Add glass beads 4-6 mm in diameter to cover two-thirds of the bottom of the jar. Add 75 mL of the test fluid. Immerse the two specimens in the test fluid and allow them to come to rest on top of the glass beads.”

4.6.11.1, lines 4 and 5, delete “having clean, new inserts providing water-proof seals.” and substitute “without seals or liners.”

4.6.11.2, delete “RM-60-03” and substitute “RM-66-03”.

PAGE 15

4.6.11.3.1b, lines 3, 4, 6, 9, and 11, delete “RM-60-03”

- \* 4.6.11.3.2, line 1, delete the title and substitute “Procedure II - alternate bulk humidification” and set the paragraph immediately following under subheading “a”.

PAGE 16

- \* 4.6.11.3.2.1, line 1, delete “4.6.11.2.2.1 Examination.” and replace with subheading “b.”.

PAGE 17

- \* 4.6.13, delete in its entirety.
- \* 4.7.1.4, line 2, delete “The AQL shall be 1.0 percent defective.”

MIL-B-46176A  
AMENDMENT 3

PAGE 18

6.3, delete in its entirety and substitute:

“6.3 Qualification. Awards will be made only for products which are qualified for inclusion in the applicable qualified products list at the time set for opening bids. Each product of silicone brake fluid (BFS) which satisfies all of the requirements of this specification will be qualified for a period not to exceed five years from the date of original qualification. When the qualification period has expired, each product must be requalified if the supplier wishes to maintain the formulation as a current product and be eligible to bid on prospective procurements. If the product is submitted for requalification and there has been no change in specification requirements, the qualifying activity may, at its discretion, waive complete retesting or require only partial retesting of the product to determine its continued acceptability.”

PAGE 19

\* 6.7, line 2, delete “6.3” and substitute “4.3.3”.

After 6.8, add:

“6.9 Container size and stock number.

National stock number	Container size
9150-01-102-9455	1 gallon
9150-01-123-3152	5 gallon
9150-01-072-8379	55 gallon

The margins of the amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletion) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Custodians:

Army - ME  
Navy - YD  
Air Force - 68

Preparing activity:

Army - ME

Project 9150-1051

Review activities:

Army - AR  
DIA - GS

User activities:

Army - AT  
Navy - OS, AS