NOT MEASUREMENT SENSITIVE

MIL-D-81956A
AMENDMENT 2
15 September 1999
SUPERSEDING
AMENDMENT 1
8 March 1984

MILITARY SPECIFICATION

DETERGENT, EXTERNAL REMOVABLE FUEL TANKS

This amendment forms a part of MIL-D-81956A, dated 3 July 1980, and is approved for use by all Departments and Agencies of the Department of Defense.

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3.2.2: Delete in its entirety and substitute:

"3.2.2 Active ingredient concentration. The detergent shall contain up to 55% water and up to 0.5% corrosion inhibitor, with the balance of the cleaner being the active ingredient (see 4.7.2)."

3.3: Delete in its entirety and substitute:

"3.3 Effectiveness. When the detergent is tested as specified in 4.7.4, the reading obtained after the tank is cleaned shall be less than 10 parts per million (ppm)."

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4.7.4.1: Delete in its entirety and substitute:

"4.7.4.1 Safety check equipment. For checking the flammable vapors inside the tank, a Portable Gas Detection and Alarm System, Catalog No. 0023-7350, manufactured by Bacharach Instrument Co., a division of Ambac Industries, or equivalent shall be used."

4.7.4.3: Add the following to the end of the paragraph:

"Five hundred and twenty five milliliters of tap water shall be poured into the drum and the cap shall be closed. The can shall be agitated so that all surfaces are coated with water. The drum shall be opened and drained by removing the drain plug. A meter reading shall be taken and recorded."

4.7.4.5: Delete the last four lines and substitute:

"all the cleaner has drained thoroughly, the drum shall be filled three times with clear, warm water at approximately 29 to 35°C (85 to 95°F), and be allowed to drain thoroughly each time. A check shall be made for the presence of combustible vapors and a meter reading shall be taken. The reading obtained in 4.7.4.3 shall be subtracted from this value. The final value obtained after subtraction shall not be greater than 10 ppm."

* 4.7.5: Delete in its entirety and substitute:

"4.7.5 Corrosion. Three specimen panels shall be used for this test. They shall conform to QQ-A-200/16 and be 6 inches by 1 inch by 0.050 inch thick. The panels shall be wiped with reagent grade acetone using bleached cotton cheesecloth or cloth in accordance with CCC-C-46, Class 7, then dipped in distilled water and acetone, and dried for 1 hour at 100° ±3°C (212° ±5°F). Each panel shall then be weighed to the nearest tenth of a milligram (0.1 mg) and the weight shall be recorded. The panels shall then be processed in the following manner. One panel shall be totally immersed in a 1:5 solution of the detergent in water. Another panel shall be immersed in a 1:10 solution and the third panel immersed in a 1:20 solution. Immersion time shall be 4 hours at 25° ±1°C (77° ±2°F). After this time, each panel shall be removed, rinsed in deionized or distilled water, rinsed again with acetone, and dried for 1 hour at 100° ±3°C (212° ±5°F). The panels shall then be cooled to room temperature and reweighed to the nearest 0.1 mg. The weight shall be recorded.

NOTE: The margins of this amendment are marked with asterisks to indicate where changes 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.

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