

[NOT MEASUREMENT SENSITIVE]

MIL-C-85704A  
AMENDMENT 3  
31 August 1988  
SUPERSEDING  
AMENDMENT 2  
10 March 1988

## MILITARY SPECIFICATION

### CLEANING COMPOUND, TURBINE ENGINE GAS PATH

This amendment forms a part of MIL-C-85704A, dated 7 April 1986, and is approved for use by all Departments and Agencies of the Department of Defense.

#### PAGE 5

\* 3.3 At end of paragraph, add: "Surface active agents used in the cleaning compound shall be at least 90 percent biodegradable, determined in accordance with methods appropriate to surfactant type."

#### PAGE 7

\* 4.2.1 Delete in its entirety and substitute:

"Inspection conditions. Standard conditions shall be a temperature of  $22^{\circ} \pm 2^{\circ}\text{C}$  ( $72^{\circ} \pm 4^{\circ}\text{F}$ ) and a relative humidity of  $50 \pm 20$  percent. All tests shall be conducted at standard conditions unless otherwise specified herein."

#### PAGE 8

\* 4.3.2 Delete subparagraph "a" and substitute:

"a. Certification showing the material conforms to 3.3 (biodegradability), 3.3.2 (elemental content) and 3.3.3 (phenolic content) in lieu of actual test data."

#### PAGE 9

4.4.2.2 Delete and substitute:

"4.4.2.2 Physical property inspection. Two containers shall be randomly selected from the first lot and tested to the requirements specified in Table VII. From successive lots, two containers shall be randomly selected and tested to the requirements specified in Table XII. The samples selected shall be thoroughly mixed prior to testing. Failure of the material to conform with any requirement specified in Table VII for the first lot, or Table XII for successive lots, shall be cause to reject the entire inspection lot."

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\* 4.5.11 Delete in its entirety and substitute:

" 4.5.11 Emulsibility. Add ten ml of undiluted cleaning compound to a clean 50 ml glass stoppered graduated cylinder and place in chamber refrigerated to  $5^{\circ} \pm 1^{\circ}\text{C}$  ( $41^{\circ} \pm 2^{\circ}\text{F}$ ). Maintain the graduate at this temperature throughout the test. Cool distilled water to the same temperature, add 40 ml to the graduate once and return it upright, taking two full seconds for this procedure. After 60 seconds, pour the contents of the graduate onto a dark colored surface and examine for homogeneity. The presence of any clotting, coagulation or gelation constitutes a failure. If a homogeneous emulsion forms, shake the graduate for 15 seconds and allow to stand undisturbed for 48 hours. The presence of any phase separation constitutes a failure."

PAGE 22

Table VII, delete the line: "Flammability /3.6/4.5.4."

PAGE 24

\* Table X, Note 1: Delete in its entirety and substitute:

"Note 1/ Non-volatile content shall be determined using 2 to 3 gram sample weights, 100 mm diameter Petri dishes, and a forced draft oven at  $105^{\circ} \pm 2^{\circ}\text{C}$  ( $221^{\circ} \pm 4^{\circ}\text{F}$ ) for 16 hours. An infrared spectrogram of the non-volatile matter smeared on a sodium chloride plate shall be recorded using a double beam diffraction gradient spectrophotometer with a minimum resolution of 3 wavenumbers."

\*Add Table XII:

TABLE XII. Quality conformance - physical testing.

Characteristics	Paragraph	
	Requirement	Test
Compositional assurance 1/	3.3.1	4.5
Ash content	3.3.5	4.5.3
ph	3.4	4.5
Flash point	3.5	4.5
Viscosity	3.6	4.5
Total immersion corrosion	3.8.1	4.5.5
Emulsibility	3.10	4.5.11
Salt water stability	3.13	4.5.14
Acid stability	3.14	4.5.15
Workmanship	3.19	Visual

1/ (See 4.4.3)

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The margins of this amendment are marked with an asterisk or vertical lines to indicate where changes (additions, modifications, corrections, deletions) 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 - AV  
Navy - AS  
Air Force - 68

Preparing Activity:

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