

MIL-P-7254F  
 Amendment 2  
 18 January 1972  
 Superseding  
 Amendment 1  
 22 February 1971

MILITARY SPECIFICATION

PROPELLANT, NITRIC ACID

This amendment forms a part of Military Specification MIL-P-7254F, dated 30 April 1970, and is mandatory for use by all Departments and Agencies of the Department of Defense.

Page 1, 1.2: Add "Type IV - High density propellant with nominal 44 percent  $\text{NO}_2$  content, lower solids content, plus corrosion inhibitor, and limited iron content".

Page 3, Table 1, Type IIIA: For  $\text{HNO}_3$  maximum assay delete "84.8" and substitute "84.9".

Page 3, Table 1, Type IIIB: For  $\text{HNO}_3$  assay delete "81.6 - 84.8" and substitute "81.7 - 84.9".

Page 3, Table 1, Type IIILS: For  $\text{HNO}_3$  assay delete "83.6 - 86.3" and substitute "83.7 - 86.4".

Page 3, Table 1, Type IIILS: For  $\text{Fe}_2\text{O}_3$  constituent delete "0.0015" and substitute "0.002".

Page 3, Table 1: Add Type IV with the following chemical composition and physical properties requirements and, with quality assurance provisions equivalent to that specified by the specification and this amendment.

$\text{HNO}_3$ , percent by weight	52.7-57.4
$\text{NO}_2$ , percent by weight <u>1/</u>	44 ± 2
HF, percent by weight	0.7 ± 0.1
$\text{H}_2\text{O}$ , percent by weight	0.5 max
$\text{Fe}_2\text{O}_3$ , percent by weight	0.002 max
Solids, percent by weight as nitrates	0.04 max
Specific Gravity, 60°F/60°F	1.642 min 1.652 max

1/ The  $\text{NO}_2$  content shall be in accordance with MIL-P-26539C, Composition MON-1.

FSC 9135

MIL-P-7254F  
Amendment 2

Page 6, 4.5.2.2: At end of sentence seven (7) delete "until the ampoule is opened".

Page 7, 4.5.3.1: Delete sentence five (5) and substitute "Add without stirring an exact volume of 0.1N ceric solution sufficient to react the nitrite ion, amount can be calculated from the aliquot weight of the sample, plus 5 ml in excess."

Page 8, 4.5.3.3(a)(1): Delete sentence one (1) and substitute "Dissolve exactly 54.878 g of dry primary standard grade ceric ammonium hexanitrate  $[(NH_4)_2 Ce (NO_3)_6]$  in 2N- $H_2SO_4$  and make up to the mark in a 1000 ml volumetric flask with 2 N- $H_2SO_4$ ."

Page 8, 4.5.3.3(a) (3): Delete and substitute: (3) Sulfuric acid solutions, 0.5 N, 1 N and 2 N: Dilute 14 ml, 28 ml and 56 ml respectively of concentrated ACS reagent grade  $H_2SO_4$  to 1000 ml with distilled water.

Page 11, 4.5.6.2: Under calculation delete "2.09" and "1.52" factors and substitute "4.18" and "3.03", respectively.

Page 13, 4.5.8.1: In second (2) sentence delete "at 1405  $m\mu$ " and substitute "of the water peak".

Page 15, Figure 2: Delete "1405  $m\mu$ " and "1440  $m\mu$ " values shown on the absorption spectrum and, substitute "HOH" and "HONO<sub>2</sub>", respectively. Under legend delete "1405" and "1440" values and, substitute "1410 approx" and "1450 approx".

Page 18, 6.1.1: Add at end of last sentence "and Type IV is now redefined herein for HDA."

Page 19, 6.2.2: In last line delete "(RPORS)" and substitute "(DOZS)".

Page 19, 6.3: Delete last sentence and substitute "The shipment of Types III LS and IV propellant in stainless steel containers for long-distances is prohibitive for reason of a low maximum allowable limit iron requirement. The use of these containers may result in out-of-specification product at destination. Types III LS and IV propellant should be shipped exclusively in aluminum containers".

Custodians:

Army - MI  
Navy - AS  
Air Force - 12

Review Activities:

Army - MI  
Navy - AS  
Air Force - 19,68

Preparing Activity:

Air Force - 12

Civilian Agency Interest:

NAS

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