MIL-A-166C
6 January 1975
SUPERSEDING
MIL-A-00166B (MU)
28 August 1968 AND
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31 October 1945

MILITARY SPECIFICATION

AMMONIUM PICRATE
(EXPLOSIVE D)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers one type of Ammonium Picrate (Explosive D) intended for use in ammunition.

1.2 Classification - Ammonium picrate shall be of the following classes as specified (see 6.2):

Class 1 - Coarse
Class 2 - Fine

2.1 The following documents of the issue in effect on date of invitation for bids, or request for proposals, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

PPP-T-76 -	Tape, Pressure-sensitive Adhesive Paper, Water-Resistant (For Carton Sealing)
PPP-B-636 -	Box, Fiberboard

FSC: 1376

STANDARDS

MILITARY

MIL-STD-105 -	Sampling Procedures and Tables for Inspection by Attributes (ABC-STD-105)
MIL-STD-109 -	Quality Assurance Terms and Definitions
MIL-STD-650 -	Explosives: Sampling, Inspection and Testing
MIL-STD-1168-	Lot Numbering of Ammunition
MIL-STD-1235-	Single and Multilevel Continuous Sampling Procedures and Tables for Inspection by Attributes

DRAWINGS

U. S. ARMY

7548644	- Box, Packing for High Explosives, Assembly Details, Packing and Marking
7548645	- Carton, Packing, Reusable-Collapsible, for High Explosives, Assembly, Details, Packing and Marking

(Copies of specifications, standards, drawings and publications, required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

2.2 Publications - The following document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS PUBLICATION

ASTM Designation E300-70 - Recommended Practice for Sampling Industrial Chemicals

(Application for copies of ASTM Standards should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania, 19103).

3. REQUIREMENTS

3.1 Material - The ammonium picrate shall conform to the requirements of Table I when determined as specified in the applicable paragraphs of Section 4.4.

TABLE I

PROPERTY	REQUIREMENT Class 1	REQUIREMENT Class 2*	TEST PARAGRAPH
Surface moisture and volatiles content, %, maximum (max)	0.10	--	4.4.1.1
Total moisture content, %, max	--	0.20	4.4.1.2
Ammonium picrate purity, %, min	99.0	99.0	4.4.2
Sulfates (as sulfuric acid), %, max	0.10	0.10	4.4.3
Chloroform soluble impurities, %, max	0.10	--	4.4.4
Water insoluble material, %, max	0.10	0.10	4.4.5
Irritant contaminants (as chlorine) parts of chlorine per million max.	50 **	--	4.4.6
Ash, %, max.	0.1	0.1	4.4.7
Acidity and alkalinity (as picric acid or ammonia),%, max.	0.025	0.025	4.4.8
Color	Yellow to Orange	Yellow to Orange	4.4.9

* The picric acid used to make Class 2 ammonium picrate shall be made by the nitration of phenol and shall contain no material salvaged from trimmings or from loading operations. Class 2 ammonium picrate shall contain no reworked ammonium picrate made by way of any process other than the phenol nitration process.

** Not applicable to ammonium picrate made from picric acid produced by the nitration of phenol.

3.2 Granulation - The granulation of the applicable class of ammonium picrate shall be as specified in Table II, when determined as specified in 4.4.10.

TABLE II

U.S. Standard Sieve No.	Percent by Weight	
	Class 1	Class 2
Through Number (No.) 12, minimum (min)	99.9	--
Through No. 40, min.	--	99.5
Retained on No. 70, min.	60.0	--
Retained on No. 70, max.	--	20.0
Through No. 200, max.	5.0	--

3.3 Bulk density (applicable to class 1 only).- The bulk density of the ammonium picrate shall be 0.82 grams (gm.) per cubic (cu.) centimeter (cm.) min., when determined as specified in 4.4.11. In order to comply with this requirement on recrystallized ammonium picrate, the manufacturer shall be allowed, if necessary, to recrystallize all such material solely from water, and, in addition, may use as many water washes as required for the resulting material to pass the requirement.

3.4 Workmanship.-The material furnished under this specification shall be free of lumps, dirt, chips and other foreign material.

3.5 First article inspection. This specification contains technical provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for irspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements. Reference shall be made to MIL-STD-109 in order to define the terms used herein.

4.1.1 Classification of Inspection. The inspection requirements specified herein are classified as follows:

a. First Article Inspection (see 4.2)
b. Quality Conformance Inspection (see 4.3)
c. Preparation for Delivery Inspection (see 4.3.2 and 5)

4.2 First Article Inspection

4.2.1 Submission. Prior to initiation of regular production the contractor shall submit a representative first article sample consisting of 1 pound of ammonium picrate in accordance wit instructions issued by the Contracting Officer for evaluation in accordance with paragraph 4.2.2. All samples submitted shall have been produced by the contractor using the same production processes, procedures, and equipment as will be used in fulfilling the contract. All materials, including packaging and packing, shall be obtained from the same sources of supply as will be used in regular production. The sample shall be accompanied by certificates of analysis. A first article quantity, shall also be submitted whenever there is a lapse in production for a period in excess of 90 days or whenever a change occurs in manufacturing process, material used, drawing, specification or source of supply as to significantly affect product uniformity as determined by the Government. Prior to submission, the contractor shall inspect the sample to the degree necessary to assure that it conforms to the requirements of the contract and submit a record of this inspection with the sample. A sample containing known defects will not be submitted unless specifically authorized by the Contracting Officer. (see 6.1).

4.2.2 Inspections to be performed. The sample will be subjected by the Government to any or all of the examinations or tests specified in 4.3 and 4.4 of this specification and any or all requirements of the applicable drawings.

4.2.3 Rejection. If any sample fails to comply with any of the applicable requirements, the first article quantity shall be rejected. The Government reserves the right to terminate its inspection upon any failure of a sample to comply with any of the stated requirements.

4.3 Quality Conformance Inspection

4.3.1 Lot formation. A lot shall consist of one or more batches of ammonium picrate produced by one manufacturer in accordance with the same specification or same specification revision under one continuous set of operating conditions. Each batch shall consist of that quantity of ammonium picrate that has been subjected to the same unit chemical or physical mixing process intended to make the final product homogeneous. The product shall be submitted for inspection in accordance with MIL-STD-105. The criteria and procedures for the assignment of lot numbers shall be in accordance with MIL-STD-1168.

4.3.2 Examination. Sampling plans and procedures for the following classifications of defects shall be in accordance with MIL-STD-105 (ABC-STD-105). Contractor's sampling plans, if used, shall be approved by the Government and shall provide as a minimum, the protection afforded the Government by the sampling plans in MIL-STD-105. Continuous sampling plans in accordance with MIL-STD-1235 may be used if approved by the procuring activity. Also, at the option of the procuring activity, AQL's and sampling plans may be applied to the individual characteristics listed, using an AQL of 0.40 percent for each Major Defect and an AQL of 0.65 percent for each Minor Defect.

4.3.2.1 Wooden box or fiberboard carton, prior to closing (see Drawing (dwg) 7548644, 7548645).

Categories	Defects	Method of Inspection
Critical:	None defined.	
Major:	AQL 0.65 percent	
101.	Liner pierced or torn	Visual
102.	Liner improperly closed	Visual
103.	Foreign matter	Visual
Minor:	None defined.	

4.3.2.2 Sealed wooden box (see dwg. 7548644).

Categories	Defects	Method of Inspection
Critical:	None defined.	
Major:	AQL 0.65 percent	
101.	Box damaged	Visual
102.	Top improperly assembled	Visual
103.	Strapping broken, or loose	Visual/ Manual
Minor:	AQL 1.50 percent	
201.	Nail protruding	Visual
202.	Marking misleading or unidentifiable	Visual
203.	Strapping improperly assembled	Visual/ Manual

4.3.2.3 Sealed fiberboard carton (see dwg. 7548645).

Categories	Defects	Method of Inspection
Critical:	None defined.	
Major:	AQL 0.65 percent	
101.	Assembly torn or pierced	Visual
102.	Lot number misleading or unidentifiable	Visual
103.	Strapping broken or loose	Visual/ Manual
Minor:	AQL 0.65 percent	
201.	Marking misleading or unidentifiable	Visual

4.3.3 Sampling for test 4.4.1 through 4.4.11. A representative sample of approximately one pound of ammonium picrate shall be selected from each batch using ASTM Procedure E300-70 for solids. The inspection of the samples shall be in accordance with MIL-STD-1235, CSP-1 Plan, Inspection Level II, AQL 6.5%. If any sample fails to meet any test requirement the batch represented by the sample shall be rejected. Every batch produced after the last tested and accepted batch shall be tested in accordance with 4.4. If any of these batches fail to meet any of the test requirements, that batch shall also, be rejected. In addition, after any failure of a batch the contractor will return to 100% inspection until "i" successive batches are accepted as required by MIL-STD-1235. The classification and code number shall be as given in Table III.

TABLE III

CLASSIFICATION OF DEFECTS

Category	Defect
Surface moisture and volatiles content	Major
Total moisture content	Major
Ammonium picrate purity	Major
Sulfates (as sulfuric acid)	Major
Chloroform soluble impurities	Major
Water insoluble material	Major
Irrant contaminants (as chlorine)	Major
Ash	Major
Acidity and alkalinity (as picric acid or ammonia)	Major
Color	Major
Granulation	Major
Bulk Density	Major

4.3.4 Inspection Equipment. The government reserves the right to inspect the contractor's equipment and determine that he has available and utilizes correctly, measuring and test equipment of the required accuracy and precision and that the instruments are of the proper type and range to make measurements of the required accuracy. Commercial inspection equipment, shall be employed where applicable for all tests and examinations specified in 4.3 and 4.4. The contractor is responsible for assuring proper calibration procedures are followed. Government approval of all inspection equipment is required prior to its use for acceptance purpose.

4.4 Test Methods and Procedures (see 6.3)

4.4.1 Moisture

4.4.1.1 Surface moisture and volatiles (applicable to class 1 only). An accurately weighed sample of approximately 5 g shall be transferred to a tared dish approximately 7 cm in diameter. The dish shall be shaken gently to distribute the sample evenly over the bottom. The dish shall be placed in an oven, maintained at 90 ± 2 degrees Centigrade (°C) until the sample reaches constant weight (approximately 2 hours). The dish shall then be removed, cooled in a desiccator containing anhydrous calcium chloride and weighed. Determine the loss in weight, and calculate (by weight) the percentage of surface moisture and volatiles in the sample as follows:

$$\text{Percent surface moisture and volatiles} = \frac{A}{B} \times 100$$

Where:
A = Loss in weight, in g
B = Weight of sample, in g

4.4.1.2 Total moisture content (applicable to class 2 only). The total moisture shall be determined in accordance with method 101.4 of MIL-STD-650, except methyl alcohol shall be used as the solvent.

4.4.2 Purity of ammonium picrate

4.4.2.1 Apparatus. Weight buret, self supporting, 10 ml capacity; Magnetic stirrer and teflon-covered bar; Erlenmeyer flask, 125 capacity or 150 ml beaker; Analytical balance; Incadescent microscope lamp.

4.4.2.2 Reagents

4.4.2.2.1 0.1 N perchloric-acetic acid; prepared by slowly adding 5.6 ml 70% perchloric acid to 21.5 ml acetic anhydride (swirl constantly and cool, while mixing in an ice bath; maximum temperature 20°C). Dilute resulting mixture with 250 ml. glacial acetic acid, mix and make up to 500 ml with more glacial acetic acid. Keep container tighly closed and do not use for 18 hours.

4.4.2.2.2 Crystal violet indicator solution, prepared by dissolving 1.0 g of indicator in 100 ml glacial acetic acid. Keep container tightly closed.

4.4.2.3 Standardization of Perchloric-acetic acid solution. Weigh accurately 100 mg, to nearest 0.1 mg, of potassium acid phthalate in a beaker and add 100 ml of acetic acid and 1 drop of crystal violet indicator. Heat gently to dissolve and titrate immediately with perchloric-acetic acid solution to a blue end point. Add titrant dropwise. Use microscope light shining through the solution to make a spot on a white background. Spot will change from pink to predominent blue at the end point. As endpoint approaches, the buret will deliver too much solution in one drop, so drops must be split to prevent over running. A stainless steel spatula is a convenient means for splitting drops and adding them to the sample solution. Calculate the normality of the perchloric-acetic acid solution as follows:

$$\text{Normality of perchloric-acetic acid solution} = \frac{W}{204.2 \times V}$$

Where:

W = weight of potassium acid phthalate used, in mg
V = corrected volume of perchloric-acetic acid used as titrant, in ml (1)

Use the average of triplicate values for final Normality of perchloric-acetic acid solution.

4.4.2.4 Procedure. Weigh accurately 100 mg, to nearest 0.1 mg, of the dried sample into a 250 ml pyrex beaker. Run samples in quadruplicate. Add 100 ml of acetic acid and 1 drop of indicator (see 4.4.2.2.2). Heat gently on a magnetic stirrer hot plate. When sample is dissolved, titrate dropwise with standardized perchloric-acetic acid solution to blue end point. Again use microscope lamp and spatula to make end point clearer. The percent purity of ammonium picrate shall be calculated as follows:

$$\text{Percent purity of ammonium picrate} = \frac{24.61 \times A \times B}{W}$$

Where:

A = Corrected volume of 0.1N perchloric-acetic acid solution used in the titration, in ml (1)
B = Final Normality of the perchloric-acetic acid solution
W = Weight of the sample on a moisture-free basis, in g

Final percent purity of ammonium picrate shall be the average of the four determinations.

(1) Allowance shall be made for the high coefficient of cubical expansion where all titrations employ solutions in glacial acetic acid. It shall be assumed that the 0.1N solution of perchloric acid, in glacial acetic acid has the same coefficient of expansion as acetic acid itself, namely, 0.0011 ml per ml per °C. The temperature of the titrating solution at the time of titration shall be read on a thermometer attached to the buret. The observed volumes of titrating solution shall be corrected to an arbitrarily chosen standard temperature of 20°C by a factor of 0.11 percent per °C.

4.4.3 Sulfates

4.4.3.1 Photometric method. If the sulfate content is estimated to be not more than 0.065 percent, the photometric method for the determination of sulfate shall be used. An accurately weighed sample of approximately 2.5g shall be weighed into a 150 ml beaker. Fifty ml of 95 percent alcohol and 15 ml of 1N hydrochloric acid (HCl) shall be added and the mixture warmed on a steam bath until solution is complete. The solution shall be poured into a 100 ml volumetric flask and diluted to the mark with distilled water. The solution shall be mixed thoroughly. This solution shall be identified as "A". Ten ml of solution "A" shall be measured, using a 10 ml pipet, and transferred into a clean colorimetric tube. One ml of distilled water shall be added from a buret and mixed thoroughly. This shall be the blank. Ten ml of solution "A" shall be measured using a 10 ml pipet, into another colorimetric tube and 1 ml of acidified 1 percent barium chloride added. The contents shall be mixed thoroughly and allowed to stand for a minimum time of 3 minutes but not longer than 10 minutes. This shall be the sample solution. The outer surfaces of the colorimeter tubes shall be wiped with a clean cloth prior to placing the tubes in the comparison slots. The dial shall be set so that the blank reads 100 percent. The sample shall be shaken and a reading made within 30 seconds. Check readings shall be made, and 100 percent reading shall be checked each time. The percent sulfate in the sample shall be read directly from the accompanying light transmission curve. This curve shall be prepared by adding known quantities of sulfate to sulfate-free ammonium picrate, carrying these samples through the procedures and plotting the transmittancy readings against percent sulfate [as sulfuric acid (H_2SO_4)]. For this determination, the illumination switch shall be set at low and a red filter used. If the results indicate that the sulfates are below 0.065 percent, this value shall be reported as the final sulfate.

4.4.3.2 Gravimetric method. The gravimetric method shall be used if the sulfate content by the photometric method is above 0.065 percent. An accurately weighed sample of approximately 5g shall be dissolved in 300 ml of hot 95 percent ethyl alcohol, filtered through a medium porosity filtering crucible and washed with 50 ml of hot alcohol. The filtrate shall be evaporated to dryness and residue retained. The filtering crucible shall be washed with 60 ml of distilled water at 10°C, and the filtrate added to the residue from the alcohol evaporation. One hundred forty (140) ml of distilled water and 1 drop of concentrated HCl to dissolve all ammonium picrate shall then be added to the residue from alcohol evaporation, and sulfate precipitated with barium chloride in the customary manner. Calculate the percent soluble sulfates (calculated as H_2SO_4) as follows:

$$\text{Percent soluble sulfates (calculated as } H_2SO_4) = \frac{42A}{W}$$

Where:

A = Weight of precipitate, in g
W = Weight of sample, in g

The filtering crucible, from which water soluble sulfates have been extracted, shall be dried to constant weight at 105°C and then extracted with 100 ml of a hot 10 percent solution of ammoniacal ammonium acetate (300 ml ammonium hydroxide (NH_4OH), 150g ammonium acetate ($NH_4C_2H_3O_2$), 1200 ml distilled water), followed by washing with 75 ml of warm distilled water and finally with alcohol. Determine the loss in weight by drying the filtering crucible at 105°C to constant weight and calculate the percentage of lead sulfate (calculated as H_2SO_4) as follows:(2)

$$\text{Percent lead sulfate (calculated as } H_2SO_4\text{)} = \frac{32.3A}{W}$$

Where:

A = Loss of weight, in g
W = Weight of sample, in g

The sum of sulfuric acid as lead sulfate and as soluble sulfates shall be reported as total sulfuric acid.

(2) The above procedure shall be necessary since lead sulfate and sodium sulfate are insoluble in 95 percent ethyl alcohol while ammonium sulfate is slightly soluble.

4.4.4 Chloroform soluble impurities (applicable to class 1 only). A sample of 10g shall be finely ground and placed in a beaker with 50 ml. of chloroform. The sample shall stand 30 minutes with frequent stirring, filtered through a dry filter into a tared 100 ml flask, washed with 25 ml of chloroform and the washings added to the filtrate. The chloroform shall then be distilled off through a condenser and recovered for further use. The flask shall be dried for 1 hour at 100°C, cooled in a desiccator and weighed. Calculate the increase in weight as percentage of chloroform soluble impurities after subtracting the weight increase due to the picric acid, if present, (see 4.4.8) as follows:

$$\text{Percent chloroform soluble impurities} = \frac{(A-B)}{W} \times 100$$

Where:
A = Weight of residue in flask, in g
B = Weight of increase due to picric acid, in g
W = Weight of sample used, in g

4.4.5 Water insoluble material. An accurately weighed sample of approximately 10g shall be dissolved in 150 ml of boiling distilled water, boiled for 10 minutes, filtered through a tared medium porosity filtering crucible and the residue washed several times with hot distilled water. The crucible shall be dried for 1 hour at 100°C, cooled in a desiccator and weighed. Calculate the increase in weight of the crucible to percent water insoluble material.

$$\text{Percent water insoluble material} = \frac{(B-A)}{W} \times 100$$

Where:

A = Weight of tared crucible, in g
B = Weight of tared crucible and residue, in g
W = Weight of sample, in g

4.4.6 Irritant contaminants (as chlorine) (applicable to class 1 only). A sample of 100g (weighed to the nearest 0.001g) shall be finely ground and placed in a 400-ml beaker with 150 ml of ether. The sample shall stand for 1 1/2 hours with occasional stirring and then be filtered through a sintered glass filtering funnel and washed well with 200 ml ether. Forty ml of a 5 percent alcoholic sodium hydroxide (NaOH) solution shall be added to the filtrate, the solution placed on a steam bath and evaporated to approximately 20 ml. The filtrate shall be washed with distilled water into a large nickel crucible and carefully taken to dryness on a hot plate. When cool, approximately 4g (weighed to the nearest 0.001g) of sodium peroxide shall be added to the residue in the nickel crucible and the crucible heated over a Bunsen flame for at least 5 minutes until fusion is complete and no bubbles remain. The crucible shall be cooled and the mass boiled with approximately 50 ml of distilled water for 5 minutes. The contents shall be washed into a 400 ml beaker, made acid with 6N HNO_3 (add 3 to 5 ml in excess) and filtered. Ten ml of a 10 percent silver nitrate ($AgNO_3$) solution shall be added to the contents of the beaker, boiled for 5 minutes and allowed to stand in the dark until cool. The mixture shall be filtered through a tared medium porosity filtering crucible, the precipitate washed with a 1 percent HNO_3 solution, dried to constant weight at 130°C., cooled and weighed. A blank shall be run on the sodium peroxide. Calculate the irritant contaminants (as ppm chlorine) as follows:

$$\text{Irritant contaminants (as ppm chlorine)} = (A-B) \times 2{,}474$$

Where:

A = weight of precipitate from sample, in g
B = weight of precipitate from blank, in g

4.4.7 Ash. The ash content shall be determined in accordance with Method 107.1 of MIL-STD-650, except that alcohol may be used in lieu of paraffin wax.

4.4.8 Acidity and Alkalinity, (as picric acid or ammonia). Accurately weigh approximately 10g of the sample. Pour 100 ml of boiling distilled water on the sample and stir to dissolve(3). (A blank of distilled water should be run and calculated to allow for any acidity or alkalinity in the water used). Cool to 20°C and filter through #40 Whatman Filter Paper or equivalent. Wash the filter paper and precipitate with two 20 ml portions of cold distilled water. Add 5 drops of 1% methyl red in ethanol (this simplifies pH adjustment of blank). Titrate with 0.01 N sodium hydroxide if the solution is acid to pH 5.3 using a calibrated standard pH meter such as a Beckman Model H or equivalent; titrate with 0.01 N hydrochloric acid if the solution is alkaline. Calculate the percent acidity or alkalinity as follows:

$$\%\ \text{Acidity} = \frac{V \times N \times 23}{W} \qquad \%\ \text{Alkalinity} = \frac{V \times N \times 1.7}{W}$$

Where:

V = ml of titrant
N = Normality of titrant
W = Weight of sample, in g

(3) Care should be taken to avoid absorption of excessive carbon dioxide from the atmosphere into the distilled water.

4.4.9 Color. Take four portions of about 2 mg each from the sample and spread the examination sample over an area of about 8 sq. in. of glass slide. Examine the material for color under a magnifying glass using daylight illumination to determine compliance with 3.1.

4.4.10 Granulation. The granulation shall be determined in accordance with Method 204.1 of MIL-STD-650.

4.4.11 Bulk density (applicable to class 1 only). The bulk density shall be determined in accordance with Method 201.1 of MIL-STD-650.

5. PREPARATION FOR DELIVERY

5.1 Packing

5.1.1 Level A. Packing shall be in accordance with Drawing 7548644. Net weight shall not exceed 50 pounds. Ammonium Picrate shall be packed in a fiber box PPP-B-636 V3c or V3s complete with specified bag liner. Fiber box size shall be 16 1/2 by 10 3/4 by 7 3/4 inches in depth, inside dimensions. Liner shall be closed by folding the top of the bag 3 or more 180° folds until it lies flat against the surface of the filled bag. The fiber box shall be closed by application of 2 inch wide tape, PPP-T-76 over the full length of all top and bottom seams of the box with approximately 3 inch extension of tape around all corners and onto the end panels. The wooden box size shall be 16 3/4 by 11 by 8 1/4 inches in depth, inside dimensions.

5.1.2 Level B and C. Packing shall be in accordance with Drawing 7548645. Net weight shall not exceed 50 pounds.

5.2 Marking. Marking shall be in accordance with Drawing 7548644 or as applicable.

6. NOTES

6.1 Ordering data.=Procurement documents shall specify the following:

a. Title, number and date of this document.

b. Description sheets shall be prepared for each lot in accordance with MIL-STD-1171.

c. Provisions for submission of first article samples.

6.2 Intended use. Ammonium picrate is intended for the following uses:

Class 1 - For use as the main explosive charge in artillery ammunition (press loaded) or as an alternate for Composition A-3.

Class 2 - For use in the manufacture of picratol and other explosive compositions containing ammonium picrate.

6.3 Prior approval of the Contracting Officer is required for use of equivalent test methods. A description of the proposed method should be submitted thru the Contracting Officer to: Commander, ATTN: SARPA-QA-A-P, Picatinny Arsenal, Dover, New Jersey, 07801. This description should include but not be limited to the procedures used, the accuracy and precision of the method, test data to demonstrate the accuracy and precision and drawings of any special equipment required.

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ARMY-PA
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AIR FORCE-70

PREPARING ACTIVITY:
ARMY-PA

REVIEW ACTIVITIES:
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NAME OF ORGANIZATION AND ADDRESS	CONTRACT NUMBER
	MATERIAL PROCURED UNDER A ☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?
   A. GIVE PARAGRAPH NUMBER AND WORDING.

   B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

3. IS THE DOCUMENT RESTRICTIVE?

   ☐ YES ☐ NO *(If "Yes", in what way?)*

4. REMARKS

SUBMITTED BY *(Printed or typed name and address - Optional)*	TELEPHONE NO.
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