MIL-T-248C
8 November 1974
SUPERSEDING
MIL-T-00248B (PA)
11 February 1974 AND
MIL-T-248A
13 September 1962

MILITARY SPECIFICATION

TRINITROTOLUENE (TNT)

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

1. SCOPE

1.1 Trinitrotoluene (TNT) covered by this specification is a high explosive intended for use in ammunition (see 6.1).

1.2 Classification.-TNT shall be of the following types and forms as specified (see 6.1.1 and 6.1.2):

Type I	-	Flake or Crystalline Form with a solidification point of 80.20°C min.
Type II	-	Fine Crystalline Form with a solidification point of 80.40°C min.

2. APPLICABLE DOCUMENTS

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

STANDARDS

FEDERAL

FED-STD-595 - Colors

FSC: 1376

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 Inspection by Attributes

DRAWINGS

U.S. ARMY MUNITIONS COMMAND

7548644 - Box, Packing for High Explosives, Assembly Details, Packing and Marking
7548645 - Box, Packing, Reusable, Collapsible, for High Explosives
9257923 - Carton, Packing, Reusable, Collapsible, for High Explosives, Single Piece

(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).

3. REQUIREMENTS

3.1 Material.-Trinitrotoluene (Type I or Type II) shall conform to the requirements of Table I when tested in accordance with applicable paragraphs of 4.4. Trinitrotoluene that has been reworked because of non-compliance with specification requirements, shall be considered for acceptance.

TABLE I

Property	Requirement		Applicable Paragraph
	Type I	Type II	
Form	Flake or Crystalline Form	Crystalline Form	4.4.1.1
Color	No darker than No. 30257	Light Yellow	4.4.1.2
Solidification Point, Degree centigrade (°C)	80.20 min	80.40 min	4.4.2
Moisture, percent	0.10 max	0.10 max	4.4.3
Acidity (as sulphuric acid), %	0.005 max	0.005 max	4.4.4
Alkalinity	None	None	4.4.5
Insoluble matter, percent	0.05 max	0.05 max	4.4.6
Sodium, percent	0.001 max	0.001 max	4.4.7

3.2 Thickness of flake (applicable to Type I in flake form only).-The average thickness of the flakes shall be not more than 0.025 inch and the thickness of any individual flake shall be not more than 0.04 inch, when determined as specified in 4.4.8 (see 6.6).

3.3 Granulation (applicable to crystalline form only).-The TNT shall conform to the granulation requirements of Table II when determined in accordance with 4.4.9.

TABLE II

Distribution	Percent by Weight, Min.	
	Type I	Type II
Through US Standard Sieve No. 14	95	100
Through US Standard Sieve No. 100	--	95

3.4 Workmanship.-The material shall be processed in a manner that will produce the high quality material necessary to meet the requirements of this specification. The material shall be free of dirt, chips, and other foreign matter.

3.5 First article testing.-This specification makes provisions for first article testing. Submission of first article quantity by the contractor shall be as specified in the contract.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection.-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 the 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. Packaging Inspection (see 4.4.2 and 5)

4.2 First Article Inspection

4.2.1 Submission.-Prior to initiation of regular production the contractor shall submit a first article sample as designated by the Contracting Officer (see 6.2) for evaluation in accordance with the provisions of 4.2.2. The initial production sample shall consist of approximately 5 pounds of trinitrotoluene obtained by sampling as described in 4.3.3.1.2.1 or 4.3.3.2 as applicable. 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, shall be obtained from the

same sources as will be used in regular production. The sample shall be accompanied by certificates of analysis. A first article quantity, or portion thereof, as directed by the Contracting Officer, 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.

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 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

4.3.1.1 Lot formation for Continuous process.-A lot shall consist of TNT produced by one manufacturer in accordance with the same specification or same specification revision under one continuous set of operating conditions. Each interfix series shall consist of that quantity of TNT that has been subjected to the same chemical process intended to make the final product homogeneous. The product shall be submitted for inspection in accordance with MIL-STD-105 (or MIL-STD-1235 when applicable).

4.3.1.1.1 Lot Interfix.-The interfix series as described in MIL-STD-1168 shall be controlled in the following way. The interfix series shall be changed whenever there is a significant change in the raw materials. A significant change to the raw materials shall be jointly defined by the Contractor and Contracting Officer.

4.3.1.1.2 Serial Lot.-A lot shall consist of 120,000 pounds of TNT maximum or one transportation unit filled with TNT minimum; where a transporation unit is defined as box car, truck trailer, etc. Boxes shall be color coded to identify TNT by line within each lot. Each box shall be serially marked.

4.3.1.2 Lot Formation for Batch Process.-The following shall apply to TNT produced by the Batch Process: The term "lot" as used throughout this specification, refers to an inspection lot which is defined as an essentially homogeneous collection of batches of product from which representative samples are drawn and inspected to determine conformance of the selected batches with applicable requirements. The sample selected shall represent only that batch from which the sample was drawn and shall not be construed to represent any prior or subsequent batches presented for inspection. A lot shall consist of batches of TNT produced by one manufacturer in accordance with the same specification or same specification revision under one continuous set of operating conditions. The criteria and procedures for 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 Filled box prior to closing (see dwg. 7548644 and 7548645).

Categories	Defects	Method of Inspection	Code No. (see 6.3)
Critical:	None defined		

Major: AQL 0.65 percent

101.	Foreign matter.....	Visual	01001
102.	Bag liner pierced or torn.....	Visual	01002
103.	Bag liner improperly closed.....	Visual	01003

Minor: AQL 0.65 percent

201.	Type of liner incorrect.....	Visual	01004

4.3.2.2 Sealed Wooden Boxes (see dwg 7548644)

Categories	Defects	Method of Inspection	Code No.
Critical:	None defined		
Major:	AQL 1.00 percent		
101.	Top improperly assembled.....	Visual/Manual	02001
102.	Box damaged.....	Visual	02002
103.	Lot number misleading or unidentifiable.....	Visual	02003
104.	Strapping missing, broken or loose.....	Visual/Manual	02004
105.	Board broken or split.....	Visual	02005
Minor:	AQL 1.50 percent		
201.	Strapping improperly assembled....	Visual/Manual	02006
202.	Marking misleading or unidentifiable.....	Visual	02007
203.	Nail protruding.....	Visual	02008

4.3.2.3 Fiberboard Box (see dwg 7548645)

Categories	Defects	Method of Inspection	Code No.
Critical:	None defined		
Major:	None defined		

Minor: AQL 2.50 percent

201.	Staples improperly located.....	Visual	03001
202.	Staples improperly driven or loose.....	Visual	03002
203.	Flaps improperly located.....	Visual	03003
204.	Less than eight (8) sound staples per joint.....	Visual	03004
205.	Delamination of scoreline at edge more than one inch.....	Visual	03005

4.3.2.4 Fiberboard Box (Single Piece) (see dwg. 9257923)

Categories	Defects	Method of Inspection	Code No.
Critical:	None defined		
Major:	AQL 0.40 percent		
101.	Box liner not properly located.....	Visual	04001
102.	Box liner improperly glued.....	Visual/Manual	04002
Minor:	AQL 2.50 percent		
201.	Stitches improperly located.....	Visual	04003
202.	Stitches improperly driven or loose.....	Visual	04004
203.	Flaps improperly located.....	Visual	04005
204.	Less than required stitches at joint.....	Visual	04006
205.	Score lines missing or incorrectly applied.....	Visual	04007
206.	Non-stick surfaces missing (as applicable).....	Visual	04008

4.3.2.5 Sealed Fiberboard Box (see dwgs. 7548645 and 9257923)

Categories	Defects	Method of Inspection	Code No.
Critical:	None defined		

Major: AQL 0.65 percent

101.	Assembly torn or pierced	Visual	05001
102.	Lot number misleading or unidentifiable	Visual	05002
103.	Strapping or banding strips missing, broken, or loose	Visual/Manual	05003

Minor: AQL 1.50 percent

201.	Stitches missing or loose	Visual	05004
202.	Marking misleading or unidentifiable	Visual	05005
203.	Strapping or banding strips improperly assembled	Visual/Manual	05006
204.	Flaps improperly closed (as applicable)	Visual	05007

4.3.3 Testing.-The product shall be submitted for the following inspections in accordance with MIL-STD-105 and in addition, paragraphs 4.3.3.1 and 4.3.3.2 shall apply.

Inspection/Requirement	Defect Classification	Test Paragraph
Form	Major B	4.4.1.1
Color	Major B	4.4.1.2
Solidification Point	Major B	4.4.2
Moisture	Major B	4.4.3
Acidity	Major B	4.4.4
Alkalinity	Major B	4.4.5
Insoluble matter	Major B	4.4.6
Sodium	Major B	4.4.7
Thickness of flake	Major B	4.4.8
Granulation	Major B	4.4.9

4.3.3.1 Continuous Nitration Process Sampling.

4.3.3.1.1 Set Point Sampling.-Samples shall be selected at one (1) hour intervals from each line and subjected to the solidification point test as outlined in paragraph 4.4.2. If any sample fails to comply with the test requirements, the material representative of that production between the time of the previous acceptable set point determination and the point of failure shall be rejected.

4.3.3.1.2 Sampling Other Than Set Point

4.3.3.1.2.1 *Normal Sampling*. An individual sample, consisting of approximately 8 ounces shall be randomly selected from each four hours of production, from each line. These samples shall be subjected to all tests specified in Table I, paragraph 3.2 and paragraph 3.3 except for set point. Each sample shall be analyzed separately (no composite sampling) and evaluated independently. If any sample fails to comply with any requirement, the succeeding and preceeding production from that line shall be sampled at approximately 20 box intervals until such sampling shows material which satisfies the requirement of the test which failed. All boxes between the two satisfactory samples, shall be removed from the lot.

4.3.3.1.2.2 *Reduced Sampling*. After ten consecutive production lots meet all these (see 4.3.3.1.2.1) requirements, the sampling frequency shall be reduced to once a shift for each production line. However, if any sample fails to comply with any requirement, after reduced inspection is instituted the succeeding and preceeding production from that line shall be sampled at approximately 20 box intervals until such sampling shows material which satisfies that requirement. All boxes between the two satisfactory samples, shall be removed from the lot. In addition, the sampling frequency will revert to once every four hours until four consecutive lots have met the requirement of the test which failed.

4.3.3.2 Batch Process Sampling.-For TNT produced by the batch process, a representative sample of approximately 8 ounces shall be selected from each batch and subjected to the tests depicted in 4.4.1 and 4.4.3 through 4.4.9. In addition, the test depicted in 4.4.2 shall be performed on individual samples obtained from ten percent of the number of boxes in each batch. The inspection of the samples in 4.4.1 and 4.4.3 through 4.4.9 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. All batches produced between the time that the last batch was tested and accepted and the batch which failed shall be tested in accordance with the applicable methods given in paragraph 4.4. If any of these batches fail

to meet the requirement of the test which failed 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.

4.3.3.3 Sampling for test 4.4.10.-Empty fiberboard cartons shall be sampled in accordance with Special Inspection Level S-3 with AQL 4.0. The sample size represents the number of individual cartons to be sampled. Each glued joint on the sampled cartons will be tested. (see 5.2.2)

4.3.4 Inspection equipment.-For the performance of all tests and examinations specified in 4.3 and 4.4, commercial inspection equipment should be employed. The contractor shall have available, and utilize correctly, this equipment and is charged with the responsibility of insuring that proper calibration procedures are followed. Government approval of all inspection equipment is required prior to its use for acceptance purposes.

4.4 Test Methods and Procedures (see 6.7)

4.4.1 Form and Color

4.4.1.1 Form.-The form of the applicable type of TNT shall be determined by visual examination.

4.4.1.2 Color.-The color of the applicable type of TNT shall be determined by visual examination. The color for Type I, TNT, shall be determined in accordance with FED-STD-595, Color Number 30257.

4.4.2 Determination of solidification point.-The determination shall be conducted as follows:
Place a molten sample of approximately 50 grams (gm) of TNT in a covered 250 milliliter (ml) beaker. Fill the inner tube of the solidification point apparatus shown on figure 1 to within 1.5 inches of its top, with the molten TNT. Insert the stirrer and thermometer in the tube and place the tube and contents in a water bath at 95 to 100 degrees centigrade (°C) for 5 minutes. Remove the tube from the water bath and place it in the apparatus. Stir the molten material constantly, making approximately one up and down motion of the stirrer per second. Using a 76 millimeter particle immersion American Standard Testing Method Thermometer, number 93C., with a

range of 60 - 90°C, record the temperature of the molten material every 30 seconds until solidification begins as indicated by the temperature of the samples rising after reaching a minimum. A glycerin bath and a National Bureau of Standard Thermometer with a range of 79 - 82°C may be used as an alternate bath and thermometer. Continue the stirring until the temperature reaches a maximum, which is taken as the freezing point.

4.4.3 Moisture.-The moisture shall be determined in accordance with MIL-STD-650, Method 101.4.

4.4.4 Acidity.-Weigh exactly 10 g ± 0.01 g of dry TNT and place it in a 500 ml extraction flask. Add 50 ml of acetone measured in a 100 ml graduate. Shake by hand from time to time until the explosive is completely dissolved. Pour in slowly (20 to 30 seconds) 200 ml of distilled water measured in a 250 ml graduate and wait until the explosive settles (about 10 minutes). Add 8 to 10 drops of methyl red/methylene blue indicator (0.1 g of methyl red and 0.05 g of methylene blue in 100 ml of 95% ethyl alcohol) and titrate at once, without filtering, using 0.05 N sodium hydroxide. For this purpose use a 5 ml semi-micro burette graduated in 1/50 ml, 1 ml corresponding to a length of 70 to 80 mm. Add the 0.05 N sodium hydroxide solution drop by drop to the flask, shaking the latter until the indicator end-point is reached. Note the volume V_A of solution used. Carry out a blank test simultaneously under identical conditions to those of the actual determination. For this purpose, place in a 500 ml or larger extraction flask 50 ml of acetone, 200 ml of distilled water and 8 to 10 drops of methyl red/methylene blue indicator. Titrate with 0.05 N sodium hydroxide solution. Note the volume V_B of solution used.

The acidity of the TNT expressed as percentage of sulfuric acid shall be calculated as follows:

$$\text{Percent acid} = \frac{4.9\ (V_A - V_B)\ N}{W}$$

Where:

V_A = ml of sodium hydroxide used in sample
V_B = ml of sodium hydroxide used in blank
N = normality of sodium hydroxide
W = weight of sample, in g

4.4.5 Alkalinity.-Observe the color of the resultant solution in 4.4.4 when 8 to 10 drops of methyl red/methylene blue indicator is added. The formation of a green color indicates the presence of alkalinity.

4.4.6 Insoluble matter.-The insoluble matter shall be determined in accordance with MIL-STD-650, Method 105.1 using benzene as the solvent. Furthermore, the residue in the filtering crucible shall be dried in an oven at 100 ± 5°C.

4.4.7 Sodium

4.4.7.1 Atomic Absorption Spectrophotometric Methods for the Determination of Sodium

4.4.7.1.1 Apparatus.Any satisfactory Atomic Absorption Spectrophotometer

4.4.7.1.2 Reagents.-Benzene - Reagent Grade ACS Benzene shall be used. Distilled Water - Sodium-free distilled water shall be used. All references in this method to distilled water means sodium-free distilled water.

4.4.7.1.3 Preparation of standard solutions

4.4.7.1.3.1 Stock solution (sodium chloride solution).-Preparation: Weigh accurately to nearest 0.1 mg about 130 mg of reagent grade sodium chloride (or equivalent of other suitable sodium standard) on an analytical balance and transfer to a clean dry 1000 ml volumetric flask. Dissolve in sodium-free distilled water and make up to mark. This solution contains approximately 50 parts per million of sodium. Calculate exact concentration.

4.4.7.1.3.2 Standard solutions.-Preparation: Transfer 2 ml, 4 ml, 6 ml, and 8 ml aliquots of the stock solution into 100 ml volumetric flasks and dilute to volume with distilled water. These solutions will contain approximately 1, 2, 3 and 4 ppm sodium. Calculate exact concentration.

4.4.7.1.4 Adjustment of apparatus for analysis of sodium-The apparatus used shall be adjusted according to the manufacturer's prescribed settings. A nominal wavelength of 589 millimicrons should be used for sodium.

4.4.7.1.5 Calibration of apparatus with standard solutions.- Place sodium-free distilled water in aspirator cup and aspirate into the flame. Record absorbance. Repeat with the nominal 1, 2, 3, and 4 ppm standard solutions and record absorbance. Prepare a graph plotting absorbance versus exact concentration.

4.4.7.1.6 Test procedures.-Prepare a water extract of the TNT sample by either of the following methods:

4.4.7.1.6.1 Sodium by Atomic Absorption.-Weigh to the nearest mg approximately 5 gm of TNT and transfer to a 50 ml beaker. Add 15 ml of sodium free water to the beaker. Place the beaker covered with a watch glass on a steam bath or in a hot water bath for 30 minutes at 90 ± 5°C with frequent or continuous agitation. Cool the mixture, filter and collect the filtrate in 25 ml volumetric flask. Wash the TNT with two 3 ml portions of sodium-free water and collect the filtrate in the 25 ml volumetric flask. Make up to volume with sodium-free water. Using an atomic absorption spectrometer, measure the absorbance of the specimen solution. Determine the ppm sodium in the water extract from the calibration curve. Calculate the percent sodium in the TNT as follows:

$$\text{Percent Sodium} = \frac{\text{ppm sodium in water extract}}{\text{TNT Weight (g)} \times 400}$$

4.4.7.1.6.2 Sodium by Atomic Absorption.-Dissolve 5 gm of TNT, weighed to the nearest mg, in 25 ml of benzene in a separatory funnel. Add 10 ml of sodium-free water and shake vigorously. Collect the water (lower) layer in a 25 ml volumetric flask. Repeat the water extraction twice, each with 5 ml portions of sodium free water and collect each water layer in the 25 ml volumetric flask. Make up to volume with sodium free water. Discard the benzene layer. Using an atomic absorption spectrometer, measure the absorbance of the specimen solution. Determine the ppm sodium in the water extract from the calibration curve. Calculate the percent sodium in the TNT as follows:

$$\text{Percent Sodium} = \frac{\text{ppm sodium in water extract}}{\text{TNT Weight (g)} \times 400}$$

4.4.7.2 Alternate method, Colorimetric test.-The following colorimetric test shall be performed only when sodium carbonate

is used in the purification of TNT. Transfer 10 gm of sodium free TNT to a test tube approximately 6 inches long and 7/8 inch in diameter. Add 15 ml Na_2CO_3 solution containing 0.016 gm Na_2CO_3 per liter (equivalent to 0.001 percent sodium in a 10 gm sample of TNT). To a similar test tube, transfer 10 gm of the TNT being tested and add 15 ml of distilled water. Place both test tubes in a bath of boiling water and allow to remain for 30 minutes with vigorous shaking approximately every 2 minutes or with continuous agitation. At the end of this period, remove the tubes, cool until the TNT solidifies and decant the water extract into a 50 ml Nessler type tube. Wash the residue with approximately 10 ml of distilled water and add the washing to the original extract. To the combined wash water and extract in each Nessler tube, add 15 ml of reagent grade acetone and 1 ml of 8 percent oxalic acid solution. Shake the tubes and contents thoroughly, and adjust the volume of the solutions to 50 ml with distilled water. Allow the solutions to stand for a few minutes and compare the colors. If the color of the unknown is definitely less intense than that of the standard, the TNT sample shall be reported as satisfactory with respect to sodium content. If the color intensity of the unknown is equal to or greater than that of the standard, the test described in paragraph 4.4.7.1 shall be used.

4.4.8 Thickness of flake (applicable to Type I, flake TNT, only).-The thickness of each of 100 flakes of TNT shall be measured by means of a micrometer accurate to at least 0.001 inch. The maximum thickness shall be noted and the average thickness calculated. (see 6.6).

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

4.4.10 Adhesion of glued carton joints.-The glued carton shall be torn apart by lifting a corner of the glued flap and tearing it from the side wall. Examine the manner of separation of the joint and note the percentage of fiber failure. (see 4.3.3.3 and 5.2.2).

5. PREPARATION FOR DELIVERY

5.1 Packing Level A.-The trinitrotoluene (TNT) shall be packed in accordance with Dwg. 7548644.

5.2 Packing Level B.-The trinitrotoluene (TNT) shall be packed in accordance with Dwg. 7548645 or Dwg. 9257923.

5.2.1 Fiberboard Carton, Dwg. 7548645.-Carton bodies and covers shall be stapled or stiched with not less than 8 fasteners per joint. The outer fasteners in each joint shall be located so that at least a portion of each outer fastener falls within one inch but not closer than 1/16 inch from the flap edges. Fasteners in any vertical row shall not be more than 3 1/2 inches apart. Both legs of the fastener shall penetrate all layers of the fiberboard and have sufficient curl to give a firm grip. Fasteners may be added to compensate for occasionally occurring faulty fasteners except that loose fasteners shall be removed. Fasteners shall not be driven on top of each other. When assembling the body or cover, the flap edges shall not be more than 1/8 inch above or below the edge of the part. Delamination of the fiberboard which may occur where diagonal scores meet the edge of the part will be acceptable, provided the width of the delamination does not exceed one inch.

5.2.2 Adhesion of glued carton joints.-If glued cartons are used for packaging, each glued joint shall meet the requirements for fiber failure as given on Dwg. 7548645 or Dwg. 9257923 when determined as specified in 4.4.10 (see 4.3.3.3 for sampling procedures).

5.3 Marking.-The marking shall be in accordance with Dwg. 7548644, Dwg. 7548645 and Dwg. 9257923.

6. NOTES

6.1 Intended use

6.1.1 Type I.-Type I TNT is intended for use in the loading of shells and bombs and in the manufacture of demolition blocks and explosive mixtures.

6.1.2 Type II.-Type II TNT is intended for use in primer mixtures and in special compositions that require either high purity TNT or fine crystalline form.

6.2 Ordering data.-Procurement documents should 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.
d. Type and form of the trinitrotoluene.

6.3 Inspection code numbers.-The five-digit code numbers assigned to the inspection herein are to facilitate future data collection and analysis by the Government.

6.4 The Beckman Flame Spectrophotometer with photomultiplier attachments consisting of the following:
a. A standard Beckman Model DU Spectrophotometer,
b. A Beckman Flame Spectrophotometer Attachment, Model 9200,
c. A Beckman Regulator, Model 9220 and
d. A Beckman Photomultiplier Attachment, Model 4300
has been found satisfactory.

6.5 International standardization agreement.-Certain provisions, Section 3 and 4.4, of this specification are subject to international standardization agreement of STANAG 4025 and ABC-ARMY-STD-118. When an amendment, revision, or cancellation of this specification is proposed, the departmental custodians will inform their respective Departmental Standardization Offices so that appropriate action may be taken respecting the international agreement concerned.

6.6 Flake thickness.-This test is applicable to the first article testing and the first ten lots of production. After the process is under control, as evidenced by the first ten lots meeting the flake thickness requirement, testing for this requirement will be discontinued.

6.7 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, N.J., 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.

Custodians:
Army-PA
Navy-OS
Air Force - 70

Review Activities:
Army-PA;EA
Navy-OS
Air Force-70

Preparing Activities:
Army-PA

Project Number: 1376-0114

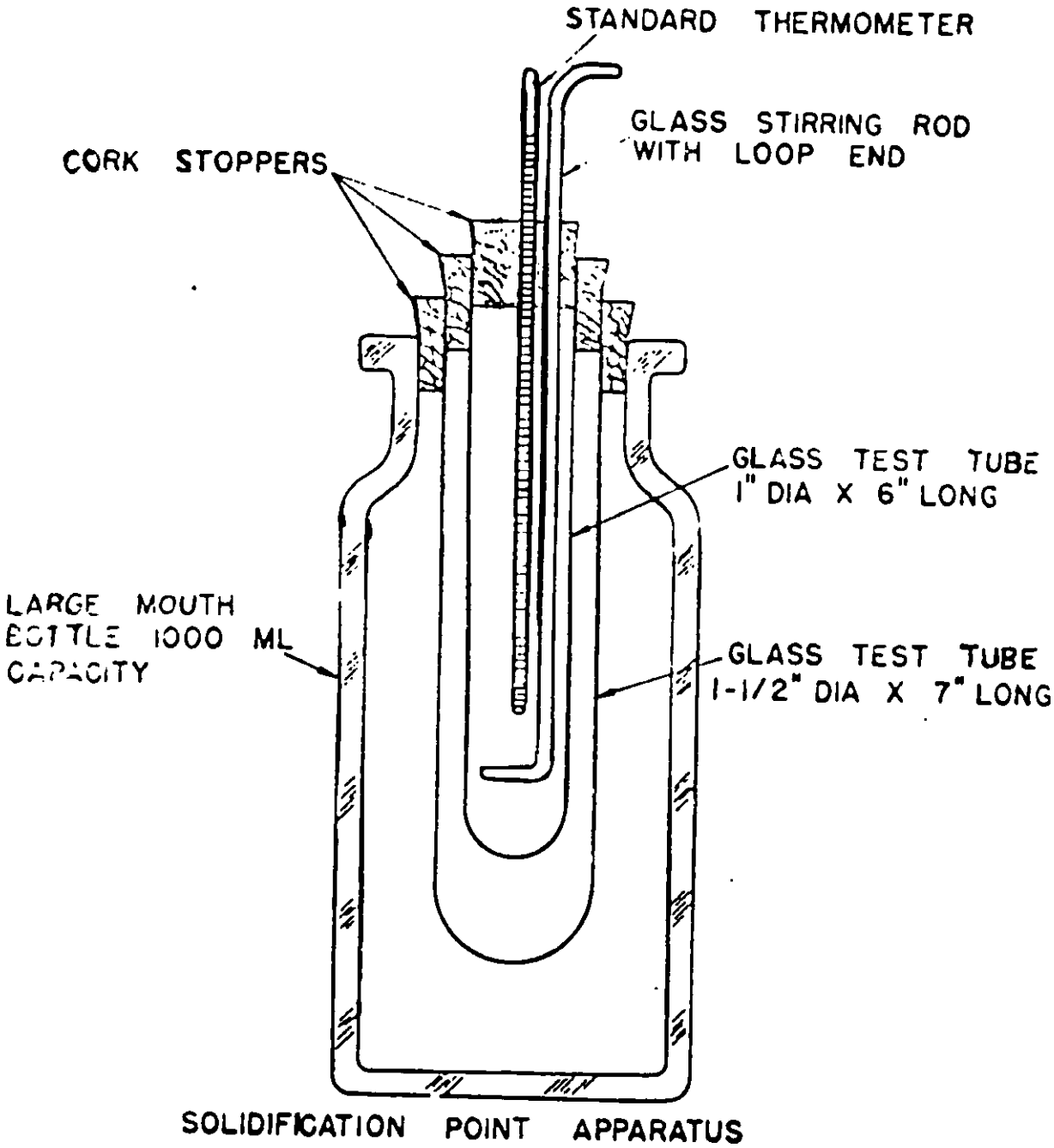

FIGURE 1.

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FOLD

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval No. 22-R255

INSTRUCTIONS. The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.

DOCUMENT IDENTIFIER AND TITLE

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.

DATE

DD FORM 1 JAN 72 **1426**

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED