

MIL-E-46676A (MU)  
17 April 1964  
SUPERSEDES  
MIL-E-46676 (MU)  
31 October 1962

## MILITARY SPECIFICATION

### EXPLOSIVE, FLEXIBLE

#### 1. SCOPE

1.1 Scope.-This specification covers one type of flexible explosive (see 6.1).

1.2 Classification.-The flexible explosive shall be of the following grades:

Grade A (see Table 1 and 6.4)  
Grade B (see Table 1 and 6.4)

#### 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.

#### SPECIFICATIONS

##### MILITARY

MIL-C-401 - Composition B  
MIL-B-2427A - Boxes, Ammunition Packing, Wood, Nailed  
MIL-C-45468 - Cap, Blasting, Electric, M6 Assembling  
and Packing

##### FEDERAL

PPP-B-636 - Box, Fiberboard

FSC: 1375

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STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-109 - Inspection Terms and Definitions
- MIL-STD-650 - Explosives: Sampling, Inspection and Testing
- MIL-STD-1235 - Single and Multilevel Continuous Sampling Procedures and Tables for Inspection by Attributes

DRAWINGS

ORDNANCE CORPS

- C8796522 - Marking for Shipment.

(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 shall apply.

CODE OF FEDERAL REGULATIONS

- 49 CFR 71-90 - Interstate Commerce Commission Rules and Regulations for the Transportation of Explosives and Other Dangerous Articles.

(The Interstate Commerce Commission Regulations are now a part of the Code of Federal Regulations (1949 Edition and revisions) available from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Orders for the above publication should cite "49 CFR 71-90 (latest revision)".)

3. REQUIREMENTS

3.1 Qualification.-The flexible explosive furnished under this specification shall be a product which has passed all the qualification tests specified herein and has been listed on or approved for listing on the applicable qualified products list. The flexible explosive supplied under contract shall be identical

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with the material receiving qualification. Any change in formulation or process shall necessitate requalification (see 6.4). Qualification data shall be made available to the Government inspector by the manufacturer to permit identification of formulation or process changes.

3.2 Form.-The form of the flexible explosive shall be specified in the contract.

3.3 Color.-The color shall be olive drab, (unless otherwise specified in the contract) when tested as specified in 4.3.16..

3.4 Physical properties.-The flexible explosive shall conform to the physical properties listed in Table I when tested as specified in Table II.

3.5 Workmanship.-The flexible explosive shall be free from cracks, voids, air bubbles, holes, blisters, dirt and other impurities.

Table I

Physical Properties of Flexible Explosive

| Properties  | Grade A<br>(Navy Use Only)              |                | Grade B<br>(Army Use) |      |
|---|---|----------------|-----------------------|------|
|   | Minimum (Min.)                          | Maximum (Max.) | Min.                  | Max. |
| Detonation<br>Continuity  | Uniformly depressed, no<br>plateaus     |                | --                    |      |
| Rate of Detonation<br>Meters Per Second<br>(MPS)  | 6600                                    | 7500           | 6600                  | 7500 |
| Sensitivity:<br>Drop Test   | None                                    |                | --                    |      |
| Blast or explosion<br>E.R.L. Bruceton<br>Impact   | No more sensitive than<br>Composition B |                | --                    |      |
| Friction,<br>Sign of decomposition<br>as indicated by flash,<br>odor or crackling<br>sound. | None                                    |                | None                  |      |

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|  |      |      |
|--|------|------|
| Electrostatic,<br>Explosion or fire                      | None | None |
| Bullet impact,<br>explosion                              | None | None |
| Bar drop impact<br>explosion                             | None | None |
| Flame explosion  | None | None |
| Density<br>Grams per cubic<br>centimeter (g/cc),<br>Min. | 1.4  | 1.4  |
| Exudation, percent,<br>Max.                              | 0.10 | 0.10 |
| Vacuum stability,<br>milliliters, Max.                   | 5    | 5    |
| Cracks at 160° F.<br>depth in inches,<br>Max.            | 1/16 | 1/16 |
| Cracks at -40° F.<br>depth in inches,<br>Max.            | 1/16 | 1/16 |
| Change in color  | None | None |

Table II

Classification of Test

|                       | Grade A (Navy Use)              |                                | Grade B                         |                                |
|-----------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
|                       | Quali-<br>fica-<br>tion<br>Test | Lot<br>Accept-<br>ance<br>Test | Quali-<br>fica-<br>tion<br>Test | Lot<br>Accept-<br>ance<br>Test |
| Detonation Continuity | 4.3.1                           | --                             | --                              | --                             |
| Sensitivity:          |                                 |                                |                                 |                                |
| Drop Test             | 4.3.2                           | --                             | --                              | --                             |
| Friction              | 4.3.3                           | --                             | 4.3.3                           | --                             |
| Electrostatic         | 4.3.4                           | --                             | 4.3.4                           | --                             |
| E.R.L. Bruceton       | 4.3.5                           | --                             | --                              | --                             |

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|                    |        |        |        |        |
|--------------------|--------|--------|--------|--------|
| Bullet Impact      | 4.3.7  |        | 4.3.7  |        |
| Flame              | 4.3.8  |        | 4.3.8  |        |
| Bar Drop Impact    | 4.3.9  | 4.3.9  | 4.3.9  | 4.3.9  |
| Density            | 4.3.10 | 4.3.10 | 4.3.10 | 4.3.10 |
| Exudation          | 4.3.6  |        | 4.3.6  |        |
| Vacuum Stability   | 4.3.14 |        | 4.3.14 |        |
| Cracks at 160° F.  | 4.3.11 | 4.3.11 | 4.3.11 | 4.3.11 |
| Cracks at -40° F.  | 4.3.12 | 4.3.12 | 4.3.12 | 4.3.12 |
| Change in Color    | 4.3.15 |        | 4.3.15 |        |
| Rate of Detonation | 4.3.13 | 4.3.13 | 4.3.13 | 4.3.13 |

## 4. QUALITY ASSURANCE PROVISIONS

4.1 General quality assurance provisions.-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, the supplier may utilize his own or any other inspection facilities and services acceptable to the Government. Inspection records of the examinations and tests shall be kept complete and available to the Government as specified in the contract or order. 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 Standard MIL-STD-109 in order to define the terms used herein. Inspection shall be performed in accordance with this specification and other specifications referenced in any of the contractual documents.

4.1.1 Contractor quality assurance system.-If the contractor desires to utilize a quality assurance system, which is at variance with the quality assurance provisions of 4.2 and 4.3 and other documents referred to herein, he shall submit a written description of the system to the contracting officer for approval prior to initiation of production. It shall include a description covering controls for lot formation and identification, inspections to be performed, inspection stations, sampling procedures, methods of inspection (measuring and testing equipment), and provisions for control and disposition of non-conforming material. The written

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description will be considered acceptable when, as a minimum, it provides the quality assurance provisions required by the provisions of 4.2 and 4.3 and the other documents referenced herein. The contractor shall not be restricted to the inspection station or the method of inspection listed in this specification provided that an equivalent control is included in the approved quality assurance procedure. In cases of dispute as to whether certain procedures of the contractors system provide equal assurance, the comparable procedure of this specification shall apply. The contractor shall notify the Government of, and obtain approval for, any changes to the written procedure that affects the degree of assurance required by this specification or other documents referenced herein.

- 4.1.2 Submission of product.-At the time the completed lot of product is submitted to the Government for acceptance, the contractor shall supply the following information accompanied by a certificate which attests that the information provided is correct and applicable to the product submitted:
- a. A statement that the lot complies with all quality assurance provisions of the approved current written description of the system.
  - b. Quantity of product inspected.
  - c. Results obtained for all inspections performed.
  - d. Specification number and date, together with an identification and date of changes.
  - e. Certificates of analysis on all material procured directly by the contractor when such material is controlled by Government specifications listed in any of the contractual documents.
  - f. Quantity of product in the lot.
  - g. Date submitted.

The certificate shall be signed by a responsible agent of the certifying organization. The initial certificate submitted shall be substantiated by evidence of the agent's authority to bind his principal. Substantiation of the agent's authority will not be required with subsequent certificates unless, during the course of the contract, this authority is vested in another agent of the certifying organization.

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4.1.3 Government verification.-Using the contractor's written quality assurance procedure (see 4.1.1), this detailed specification, and other contractual documents as a guide, the Government inspector shall verify all quality assurance operations performed by the contractor. Verification shall be in accordance with a or b as applicable, the decision being the responsibility of the procuring activity. In either case, the inspector shall also ascertain, prior to acceptance, that all quality assurance provisions of other specifications referenced in any of the contractual documents have been complied with. Deviations from prescribed or agreed upon procedures discovered by the Government inspector shall be brought to the attention of the supplier. Disposition of the product and remedial action shall be as directed by the Government inspector and, depending on the nature of the deviation, may consist of lot rejection, screening, resampling, re-instruction of the supplier's employees, or other appropriate action:

a. Verification at the point of manufacture shall be accomplished at unscheduled intervals in accordance with 4.1.3.1 and 4.1.3.2.

b. Verification at the point of delivery shall be in accordance with 4.1.3.2.

4.1.3.1 Surveillance.-Surveillance shall include, but is not limited to:

a. Observation of procedures concerning lot formation and identification.

b. Observation of sampling procedures and application of acceptance criteria.

4.1.3.2 Product inspection.-Physical inspection by the Government of contractor-accepted product will be performed to the extent necessary to assure contractor compliance with the requirements of this specification and to determine the reliability of contractor records. Severity of Government inspection of individual characteristics will be directly related to the seriousness of the classification assigned. In no instance will a characteristic classified "critical" be accepted solely on the basis of the contractor's records.

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4.1.4 Qualification provisions.-Qualification provisions shall consist of all tests specified in 4.3.

4.1.4.1 Classification of tests.-Classification of tests shall be in accordance with Table II.

## 4.2 Inspection provisions

4.2.1 Lot formation.-A lot shall consist of one or more batches of Flexible explosive in accordance with the same processing operation, conditions, drawing and specification or revision thereof. A batch shall be that quantity of flexible explosive which has been subjected to the same chemical and physical mixing process intended to make the final product substantially uniform. Each ingredient shall be from one lot and from the same manufacturer. Drawing, specification, and process changes not affecting safety and performance, as determined by the Government, shall not necessitate change of the lot interfix number. The product shall be submitted for inspection in accordance with Standard MIL-STD-105D (or Standard MIL-STD-1235 when applicable).

4.2.2 Examination.-Sampling plans and procedures for the following classification of defects shall be in accordance with Standard MIL-STD-105D Continuous sampling plans, in accordance with Standard 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 0.25 percent for each major defect and an AQL of 0.40 percent for each minor defect.

## 4.2.2.1 Container (prior to sealing)

| Categories | Defects | Method of Inspection | Code No (see 6.3) |
|------------|---------|----------------------|-------------------|
|------------|---------|----------------------|-------------------|

Critical: None defined.

Major: None defined



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Minor: AQL 1.00 percent  
 201. Form improper ..... Visual 01001  
 202. Release paper missing ..... Visual 01002

## 4.2.2.2 Container sealed

| Categories | Defects | Method of Inspection | Code No. |
|------------|---------|----------------------|----------|
|------------|---------|----------------------|----------|

Critical: None defined

Major: None defined

| Minor | Defects  | Method of Inspection | Code No. |
|-------|--|----------------------|----------|
| 201.  | Container damaged so that contents are exposed or liable to become exposed ..... | Visual               | 02001    |
| 202.  | Marking misleading or unidentifiable .....                                       | Visual               | 02002    |

4.2.3 Forty pounds of Flexible explosive, of the specified dimensions of specimens for the various tests in section 4.3, shall be selected at random from the lot. The sample shall be packed in cartons, with the units of flexible explosive separable by release paper in accordance with section 5. Each carton shall be marked to show the lot number, manufacturer, date of sampling, contract number and number of pounds in the lot.

## 4.3 Test methods for qualification and/or lot acceptance

4.3.1 Detonating continuity under a hydrostatic load of 10,000 pounds per square inch (p.s.i.).-A sheet of explosive .08 plus or minus 0.004 inches by 3 inches by 10 inches shall be attached to a steel witness plate at least 1/4 inch thick by means of an adhesive coating. The witness plate shall be large enough to back the entire slab of explosive. A military M6 blasting cap or equivalent shall be secured against the middle of the 3-inch side of the charge and the assembly shall be mounted in a water tank capable of being pressurized to 10,000 p.s.i. The charge shall be detonated after 45 minutes under a measured 10,000 p.s.i. hydrostatic pressure, at ambient temperature. The witness plate shall be uniformly depressed under the charge and shall show no plateaus indicative of a detonation discontinuity. Code No. 03001.

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4.3.2 Drop test.-The cylinder case for the drop test shall be constructed of mild steel with walls of .06 inches thick and having an internal diameter of 5 inches and a length of 12 inches. The case shall have threaded mild steel end caps, 3/8 inch thick. A charge of flexible explosive shall be pressed so as to fill the case snugly. The case shall be loaded by the contractor. The case shall be fixed horizontally beneath a weight of 336 pounds, equipped underneath with 3 equally spaced studs (3 inches long and 3/4 inch in diameter) so that when the weight is dropped the studs will penetrate the top surface of the case. Ten cases shall be tested by dropping the weight on each case from a height of 5 feet. A blast or explosion shall be cause for rejection, a fire unaccompanied by a blast or explosion is permissible. Code No. C4001.

4.3.3 Friction sensitivity.-A sample 1/8 x 1/8 x 1/32 of an inch shall be placed on an anvil of the sliding friction machine having a friction surface of (304 stainless steel) 60 micron finish. A force of 900 to 1000 pounds shall be applied to the friction surface and a velocity of approximately 8 feet per second to the anvil by striking it with a pendulum dropped from a 90 degree position. Twenty samples shall be selected for this test. Any evidence of decomposition whether light, or sound shall be cause for rejection. Code No. C5001.

4.3.4 Electrostatic sensitivity.-A sample approximately 0.250 inches in diameter and 0.100 inches thick shall be placed on a metal anvil of the electrostatic machine. The metal needle of the machine shall be adjusted so that when depressed the needle is .03 inches (plus or minus 0.003) from the anvil surface. The anvil and the needle shall be connected to a condenser circuit having a voltage of 3000 to 4000 volts and capacitance that with the voltage will produce a 4.0 joule spark. The needle shall be rapidly depressed into the sample. Twenty samples shall be selected for this test. Any flame or explosion shall be cause for rejection. Code No. C6001.

4.3.5 E.R.L. Princeton impact sensitivity.-Twenty five samples having a diameter of 0.188 plus or minus .002 inches and a weight of 35 milligrams plus or minus 2 milligrams shall be prepared for this test.

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## 4.3.5.1 Apparatus

4.3.5.1.1 Impact machine.-An ERL-Bruceton type drop test machine with 320 centimeters maximum drop height equipped with "type 12 tools" (see dwg. ~~SE~~ <sup>SK</sup> 3810 and ~~SE~~ <sup>SK</sup> 3685) and a 2.5 kilogram weight shall be used or equivalent.

4.3.5.2 Noisemeter.-A Peak Reading Noisemeter consisting of a microphone, amplifier and peak reading voltmeter shall be used. The amplifier or voltmeter shall have an adjustment for zeroing out background noise. The amplifier of the noisemeter shall be capable of voltage gain of 50 decibels with provisions for varying the gain. The noisemeter shall have a response between 100 cycles and 20 kilocycles and shall be equipped with a dynamic type microphone having output level within -60 decibels to -52 decibels.

4.3.5.3 Procedure.-The noisemeter shall be adjusted to zero-out room noise and determine maximum noise caused by the striker falling 320 centimeters onto a 35 milligram pellet of inert powder. In any test a reading above this maximum shall be classed as a fire.

The impact machine shall be standardized using Composition B (see 6.2). Approximately 5 grams of Composition B shall be ground and screened on sieve stack consisting of a 16 mesh (U.S. Standard) on top, a 30 mesh in the middle and a 50 mesh on the bottom. The material on the 16 mesh and passing through the 50 mesh sieves shall be discarded. Equal amounts of the material on 30 and 50 mesh sieve shall be thoroughly mixed. The Composition B shall be made into pellets weighing 35 milligrams plus or minus 2 milligrams, and having a diameter of 0.188 plus or minus .002 inches. The pellets shall be pressed at 30,000 pounds per square inch.

A one inch square of flint paper, 5/0 grade or equivalent shall be placed on the anvil for each test. Before the tests are performed the explosion and non-explosion point shall be determined. After

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the approximate heights of explosion and non-explosion are determined, the 25 samples shall be tested as follows: Place the specimen on flint paper and drop the weight from 40 centimeters or 1.6 log units; if no explosion results raise the striker one tenth log increment at a time and place a new specimen and paper on the anvil until an explosion occurs, then lower the striker one tenth log increment until a fresh specimen does not explode. The striker and anvil shall be cleaned with acetone after each drop and wiped dry with a clean cloth. The height and results of each drop shall be recorded as follows: An explosion shall be recorded as a plus sign and a non-explosion as a minus sign.

SUMMARY OF FIRING DATA

| a | b | c | b.c |
|---|---|---|-----|
|   | 0 |   |     |
|   | 1 |   |     |
|   | 2 |   |     |
|   | 3 |   |     |
|   | 4 |   |     |
|   | 5 |   |     |
|   |   | N | A   |

where:

- a = the drop heights in log increments of 0.1 log unit, beginning with the lowest drop height at which a test (explosion or non-explosion) was observed.
- b = arbitrary consecutive numbers.
- c = the number of tests observed at each corresponding drop height.
- b.c = the quantities obtained by multiplying the values listed in column "c" times the number listed in column "b" for each corresponding drop height.
- N = the sum of column "c".
- A = the sum of column "b.c".

The 50 percent point shall be calculated as follows: If more non-explosions occurred than explosions, the drop height associated with each explosion will be used in the calculations. If more explosions occurred than non-explosions, the drop heights associated with each non-explosion shall be used to calculate the 50 percent drop height.

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- if non-explosion values are used log of 50 percent point in centimeters =  $C \text{ plus } 0.1 \left( \frac{A}{N} \text{ plus } 1/2 \right)$
- if explosion values are used log of 50 percent point in centimeters =  $C \text{ plus } 0.1 \left( \frac{A}{N} \text{ minus } 1/2 \right)$

where:

- C = lowest drop height at which a value used in the calculation was recorded in column "a".
- N = the sum of test values listed in column "c".
- A = the sum of the quantities listed in column "b.c".

A 50 percent initiation height lower than that for Composition B shall be cause for rejection. Code No. 07001.

4.3.6 Exudation at 160° F.-The sheet shall be 1/4 inch thick and cut to 1 1/2 inch square and then placed on 15 layers of filter paper cut in 2 inch diameter circles. A porous release paper shall be placed between the flexible explosive and the layers of filter paper. A 125 gram brass weight 1 1/2 inch square, shall be placed on top of the sample. This assembled sample shall then be placed on a wire screen and stored in a forced draft oven for 24 hours at 160° F. Before assembly, the brass weight shall be weighed, and then reweighed with the sample. After hot storage, the sample and brass weight shall be removed from the filter paper while still warm, no attempt being made to separate brass weight from the sample and allowed to cool upside down. When cool, the sample and brass weight shall be weighed together. The test shall be run in triplicate and the average of three results shall be reported to determine compliance with the requirements. Failure to comply with the requirement shall be cause for rejection of the lot. Code No. 08001.

4.3.7 Bullet impact.-Ten rounds of 30 caliber M2 ball cartridge shall be fired from a 30 caliber M1 rifle perpendicular to the target at 40 feet. The target shall consist of a flexible sheet of explosive 1/4 inch by 3 inches by 3 inches sandwiched between a 1/16 inch thick mild steel front plate and 1 inch mild steel back-up plate. If any of the bullets cause the specimen to explode the lot shall be rejected. Code No. 09001.

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4.3.8 Flame sensitivity.-A specimen 1/4 by 1/2 by 3 inches shall be placed into an open wood fire for a minute. If the specimen explodes the lot shall be rejected. Code No. 10001.

4.3.9 Bar drop impact sensitivity.-Ten specimens with an area of 1 square inch and 0.050 inches thickness plus or minus .010 shall be selected for this test. A 10 pound bar with a diameter of 1/2 inch at the striking face shall be dropped from a height of 15 feet into a piece of flexible explosive placed on a steel anvil. If any specimen fails to comply with the requirement the lot shall be rejected. Code No. 11001.

4.3.10 Density.-Three specimens shall be weighed to the nearest milligram and measured with a suitable instrument to determine the volume. The density shall be calculated as follows:

Density = weight divided by volume.

If the average of the three tests fails to comply with the requirement, the lot shall be rejected. Code No. 12001.

4.3.11 Elevated temperature.-Three specimens 1/4 thickness by 3/8 inch by 3 inches shall be selected and placed in a ventilated oven maintained at a temperature of 160° plus or minus 5° F. for seven days. The specimens shall then be removed and allowed to cool to ambient conditions. The samples shall be bent 90° on a 1/4 inch diameter mandrel over a period of five seconds, then the samples shall be examined for cracks. If any specimen fails to comply with the requirement the lot shall be rejected. Code No. 13001.

4.3.12 Cold temperature at minus 40° F.-The three specimens (see 4.3.11) and the mandrel shall be placed in a box maintained at a temperature of minus 40° F. plus or minus 5° F. for one hour. The specimen shall then be removed from the cold box and bent 90° on a 1/4 inch diameter mandrel with a bending time of 5 seconds. The specimen shall then be measured for cracks. If any specimen fails to comply with the requirement the lot shall be rejected. Code No. 14001.

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4.3.13 Rate of detonation.-Two specimens, 1/4 by 1/4 by 12 inches, shall be attached to a wooden bar 1/4 inch by 1 inch by 9 inches with two 9/32 inch holes 7.871 inches from center to center. One end of the specimen shall be even with one end of the bar and the other end shall have a three inch overhang which is used for the starting relay. Chronograph contactors shall be inserted into the holes of the bar so that they are flush with the explosive. The contactors shall be connected to an electronic counter which records microseconds. An M6 blasting cap or equivalent shall be used to initiate the specimen. If any specimen fails to comply with the requirement, the lot shall be rejected. Note.-It is important that the lead wires from the contactors be turned away from the blasting cap so that the initial detonation does not start the counter. The rate of detonation shall be calculated as follows:

$$R = (0.20 \text{ divided by } A) \text{ times } 1,000,000$$

where:

A = time in microseconds

R = rate in meters/second (mps) Code No. 15001

4.3.14 Vacuum stability.-The gas evolution shall be determined on a 5 gram sample by the vacuum stability test at 100° C., Method 503.1 Standard MIL-STD-650. If any specimen fails to comply with the requirement the lot shall be rejected. Code No. 16001

4.3.15 Color change at 160° F.-Three specimens, 1/4 inch thickness by 3/8 by 3 inches shall be immersed in a water bath maintained at 160° plus or minus 5° F. for 24 hours. The samples shall then be compared with other samples not placed in the bath, to determine if there was any change in color. If any specimen fails to comply with the requirement the lot shall be rejected. Code No. 17001

4.3.16 Color.-A specimen shall be examined visually for conformance to paragraph 3.3 after exposure to elevated temperature of 160° F. Code No. 18001

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5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging

5.1.1 Level C.-The units of flexible explosive shall be separable by release paper.

5.2 Packing

5.2.1 Level C.-Flexible explosive shall be packed in accordance with the Code of Federal Regulations "49 CFR 71-90" and to afford protection against damage during shipment from the supply source to the first receiving activity for immediate use. Containers shall conform to the carrier rules and regulations applicable to the mode of transportation.

5.2.2 Unless otherwise specified Level A (for export) packaging - flexible explosives shall be packaged in cartons in accordance with Federal Regulations 49 CFR-71-90. Cartons shall conform to Specification PPP-B-636, Class 2, W5 C or S. Closure shall be in accordance with the appendix of that Specification. "Packing-Unit cartons shall be packed in nailed wooden boxes conforming to MIL-B-2427, Type IV, Class 2, Grade A. Closure and strapping shall be in accordance with the Appendix of that specification."

5.3 Marking

5.3.1 Normal marking.-Marking shall be in accordance with Picatinny Arsenal Drawing C8796522, less Note E. The ICC nomenclature shall be: "HIGH EXPLOSIVE - DANGEROUS".

6. NOTES

6.1 Ordering data.-Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. Color required if other than olive drab.
- c. Form
- d. Qualification
- e. Special packing or marking instructions.

6.2 Composition B.-The standard sample of Composition B shall conform to MIL-C-401 Type II.



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

6.4 Qualification.-With respect to products requiring qualification, awards will be made only for such products as, have prior to the time set for opening of bids, been tested and approved for inclusion in the applicable Qualified Products List whether or not such products have actually been so listed by that date. The attention of the suppliers is called to this requirement, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. The activity responsible for the Qualified Products List is "Commanding Officer, Picatinny Arsenal, Dover, New Jersey, ATTN: SMUPA-ND2 and information pertaining to qualification of products may be obtained from that activity." Information pertaining to qualification of Grade A flexible explosive covered by this specification may be obtained from the Commander, U.S. Naval Ordnance Laboratory, White Oak, Silver Spring, Maryland. Information pertaining to qualification of Grade B flexible explosive may be obtained from Picatinny Arsenal, Dover, New Jersey.

Custodian:  
Army-MU

Preparing activity:  
Army-MU

Project No. 1375-A701



**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. 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.

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DEPARTMENT OF THE ARMY



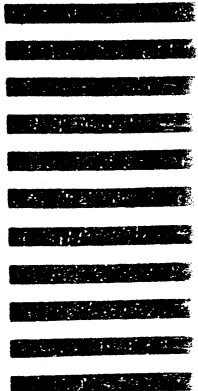
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## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

|   |  |
|---|--|
| 1. DOCUMENT NUMBER  | 2. DOCUMENT TITLE  |
| 3a. NAME OF SUBMITTING ORGANIZATION                           | 4. TYPE OF ORGANIZATION (Mark one)   |
| b. ADDRESS (Street, City, State, ZIP Code)                    | <input type="checkbox"/> VENDOR<br><input type="checkbox"/> USER<br><input type="checkbox"/> MANUFACTURER<br><input type="checkbox"/> OTHER (Specify): _____ |
| 5. PROBLEM AREAS  |  |
| a. Paragraph Number and Wording:                              |  |
| b. Recommended Wording:                                       |  |
| c. Reason/Rationale for Recommendation:                       |  |
| 6. REMARKS  |  |
| 7a. NAME OF SUBMITTER (Last, First, MI) – Optional            | b. WORK TELEPHONE NUMBER (Include Code) – Optional   |
| c. MAILING ADDRESS (Street, City, State, ZIP Code) – Optional | 8. DATE OF SUBMISSION (YYMMDD)   |