This Performance Oriented Packaging (POP) report is for the M204 Propelling Charges, packed in accordance with ARDEC drawing 9313703. This report describes the results of testing conducted on a similar package by analogy for this item.
MEMORANDUM FOR Commander, Defense Technical Information Center, Building 5, Cameron Station, Alexandria, VA 22304-6145

SUBJECT: Release of Performance Oriented Packaging Compliance Report

1. The enclosed report (DOD POP HMTR/AYD 94-013) entitled: "Performance Oriented Packaging (POP) Testing of M204, Propelling, Charges, Packed one thousand seven hundred twenty eight (1728) per fiberboard box" is hereby submitted to the Defense Technical Information Center for formal release. Please send notification of formal release to:

   U.S. Army Armament Research, Development and Engineering Center
   Attn: SMCAR-AEP, Building 455
   Picatinny Arsenal, NJ 07806-5000

2. If there are any problems, questions, or comments regarding this report, contact Mrs. Oltea Bogdan at (201) 724-2220 (DSN 880-2220).

Encl

Gene Farrall
Actg. Chief, Packaging Division
I. Report Number: DOD HMTR/AYD 94-013

II. TITLE: Performance Oriented Packaging (POP) Certification of M204 Propelling Charges, packed one thousand seven hundred twenty eight (1728) per fiberboard box by analogy

Drawing Number: 9313703

Author: Oltea Bogdan

Performing Activity: U. S. Army Armament Research, Development and Engineering Center (ARDEC)

Address: Department of the Army
Commander, U.S. Army ARDEC
Attn: SMCAR-AEP
Picatinny Arsenal, N.J. 07806-5000

Date: April 1994

Distribution Statement A.
Approved for Public Release; Distribution is Unlimited.
1. DATA SHEET

a1. Tested Container

**Type:** Box, Fiberboard  
**UN Code:** 4G  
**Specification Number:** PPP-B-636  
**Material:** Fiberboard  
**Part Number (P/N):** 9313721  
**Capacity:** 154.5 liters  
**Dimensions:** 70cm x 55.4cm x 39.84cm  
(27 9/16" x 21 13/16" x 15 11/16")  
**Gross weight:** 88 pounds (40 kg)

a2. Container being POP certified by analogy IAW 178.601(g)(3) variation 3:

**Type:** Box, Fiberboard  
**UN Code:** 4G  
**Specification Number:** PPP-B-636  
**Material:** Fiberboard  
**Part Number (P/N):** 9313703  
**Capacity:** 156.6 liters  
**Dimensions:** 65.88cm x 51.28cm x 46.36cm  
(25 15/16" x 20 3/16" x 18 1/4")  
**Gross weight:** 31 pounds (31 kg)

b1. Tested Product:

**Name:** M218, Propelling, Charges  
**Part Number:** 9300234  
**United Nations Number:** UN 0242  
**United Nations Packaging Group:** II  
**United Nations Nomenclature:** CHARGES, PROPELLING, FOR CANNON  
**Physical State:** Solid  
**Amount per Container:** 672 Propelling Charges  
**NSN:** 1315-01-290-1598

b2. Product being POP certified by analogy:

**Name:** M204, Propelling, Charges  
**Part Number:** 9312698  
**United Nations Number:** UN 0242  
**United Nations Packaging Group:** II  
**United Nations Nomenclature:** CHARGES, PROPELLING, FOR CANNON  
**Physical State:** Solid  
**Amount per Container:** 1728 Propelling Charges  
**NSN:** 1310-01-050-8896
2. BACKGROUND, TESTS, AND RESULTS

The Department of Transportation (DOT) per Code of Federal Regulations (CFR), Title 49, Parts 100-180, dated 1 Oct 92, requires that Hazardous Materials should be packed in a container that passes the Performance Oriented Packaging (POP) tests.

The Fiberboard, Box being certified by analogy (P/N 9313703) is used as the shipping container for one thousand seven hundred twenty eight (1728) M204 Propelling Charges.

Reference the following documents:


   b. POP Report DOD POP HMTR/AYD 92-026

Instead of testing the specific container used for shipping of the M204 Propelling Charges, the fiberboard box is certified to meet the requirements of the Code of Federal Regulations (CFR), Title 49 based on a previously tested fiberboard box which has been tested and has the characteristics specified in paragraph 1.61 (see attached DOD POP HMTR/AYD 92-026 POP Report).

Stacking Test, Loose Cargo and Four Foot Drop Tests were conducted in accordance with Reference 2b. Based on the Reference 2a and 2b the fiberboard box falls within the guidelines for analogy IAW with Paragraph 178.601(g)(3) of Reference 2a (Variation 3).

3. CONCLUSION

Based upon the DOD POP HMTR/AYD 92-026 POP test, the following POP symbol shall be applied to containers that are packed in accordance with ARDEC DWG. 9313703.

\[ \text{Q4G/Y40/S/**} \]
\[ \text{USA/DOD/AYD} \]

** Insert last two digits of year packed.
Craneshaw, U.S. Department of the Army

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U.N. PROPER SHIPPING NAME AND NUMBER:
Charges, propelling, for cannon, UN0242

U.N. CLASSIFICATION CODE: 1.3C

REFERENCE NUMBER               PRODUCT DESIGNATION/PART NUMBER
EX-9309083                    Charges, Propelling, M204 (NSN: 1310-01-050-8896)

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U.N. PROPER SHIPPING NAME AND NUMBER:
Cord; (Fuse) detonating, mild effect, UN0104

U.N. CLASSIFICATION CODE: 1.4D

REFERENCE NUMBER               PRODUCT DESIGNATION/PART NUMBER
EX-9309056                        Linear Shaped Charge P/N 044725-1 (NSN:
1336-01-211-0175)
EX-9309057                       Interstage, P/N 1175647-4 (NSN: 1337-01-187-3207)

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U.N. PROPER SHIPPING NAME AND NUMBER: Cutters, cable, explosive, UN2070

U.N. CLASSIFICATION CODE: 1.48

REFERENCE NUMBER               PRODUCT DESIGNATION/PART NUMBER
EX-9309084               Cutter, Locking Cord, P/N CI-4.0 (NSN: 1377-01-333-9143)