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3. DISTRIBUTION / AVAILABILITY OF REPORT

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4. PERFORMING ORGANIZATION REPORT NUMBER(S): DOD POP HMTR/AYD 94-013

5. MONITORING ORGANIZATION REPORT NUMBER(S): NONE

6a. NAME OF PERFORMING ORGANIZATION
 Packaging Division, AEP

6b. OFFICE SYMBOL (if applicable)
 SMCAR-AEP

7a. NAME OF MONITORING ORGANIZATION
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6c. ADDRESS (City, State, and ZIP Code)
 US Army Armament Research, Development and Engineering Center
 Picatnny Arsenal, NJ 07806-5000

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8b. OFFICE SYMBOL (if applicable)
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10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
 Performance Oriented Packaging (POP) Testing of M204 Propelling Charges, Packed one thousand seven hundred twenty eight (1728) per fiberboard box

12. PERSONAL AUTHOR(S)
 Oltea L. Bogdan

13a. TYPE OF REPORT
 Final

13b. TIME COVERED
 FROM _____ TO _____

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 94-04-06

15. PAGE COUNT

16. SUPPLEMENTARY NOTATION

17. COSATI CODES

FIELD	GROUP	SUB-GROUP

18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
 Performance Oriented Packaging ; DOD POP HMTR/AYD 92-026
 Fiberboard Box
 Analogy

19. ABSTRACT (Continue on reverse if necessary and identify by block number)
 This Performance Oriented Packaging (POP) report is for the Charges, Propelling, M204 packed in fiberboard, box in accordance with ARDEC drawing 9313703. This report describes the results of testing conducted on a similar package by analogy for this item.

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94-12021

DTIC QUALITY INSPECTED 3

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT
 UNCLASSIFIED/UNLIMITED SAME AS RPT. DTIC USERS

SECURITY CLASSIFICATION
 Classified

22a. NAME OF RESPONSIBLE INDIVIDUAL
 JAMES ZOLL *for V. Wham*

22b. TELEPHONE (Include Area Code)
 201-724-2865

22c. OFFICE SYMBOL
 SMCAR-AEP



DEPARTMENT OF THE ARMY
U.S. ARMY ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NJ 07806-5000



REPLY TO
ATTENTION OF

12 APR 1994

SMCAR-AEP (1mm)

MEMORANDUM FOR Commander, Defense Technical Information Center,
Building 5, Cameron Station, Alexandria,
VA 22304-6145

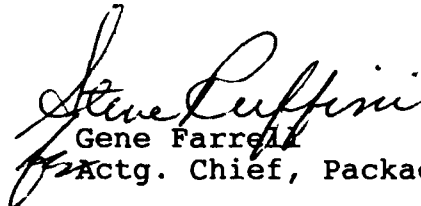
SUBJECT: Release of Performance Oriented Packaging Compliance
Report

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
as


Gene Farrell
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.

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Availability Codes	
Dist	Avail and/or Special
A-1	

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:

- a. Code of Federal Regulations, Title 49, Dated 1 Oct 1992.
- 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.a1 (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.

Ⓢ 4G/Y40/S/**
Ⓝ USA/DOD/AYD

** Insert last two digits of year packed.

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Crenshaw, U.S. Department of the Army

U.M. 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) *10/23*

U.M. 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)

U.M. PROPER SHIPPING NAME AND NUMBER: Cutters, cable, explosive, UN0070**U.N. CLASSIFICATION CODE:**

1.4B

REFERENCE NUMBER**PRODUCT DESIGNATION/PART NUMBER**

EX-9309084

Cutter, Locking Cord, P/N CI-4.0 (NSN:
1377-01-333-9143) -