I. Report Number: DOD POP HMTR/AYD 93-019

II. Title: Performance Oriented Packaging (POP) testing of Charge, Propelling, 155 MM, M4A2, Packed One per M13A2 Round Rim Metal Ammunition Container

Drawing Number: 7548187

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Distribution Statement A.
Approved for public release; distribution is unlimited.
This Performance Oriented Packaging (POP) report is for the Propelling Charge, 155mm, M4A2, packed one per M13A2 Round Rim Metal Ammunition Container in accordance with drawing 7548187. This report describes the results of testing conducted on a similar packaging which is used as an analogy for this item.
1. DATA SHEET:

a. CONTAINER

Type: Removable head steel drum
UN Code: 1A2
Part Number: 8880527
Spec Number: MIL-C-2440
Material: Steel
Capacity: 11.4 liters
Dimensions:

Inside Diameter = 6.9/64 in. min.
Outside Diameter = 7.25/32 in. max.
Inside length = 23 1/2 in. min.
Outside Length = 27 1/2 in. max.

Closure (Method/Type): Central plug which torques three spider arms into their respective bayonet slots

Tare Weight: 6.9 kg (15.3 lbs)

b. PRODUCT

Name: Charge, Propelling, 155 MM, M4A2, for HOW M1, M1A1, M45, M126
United Nations Proper Shipping Name: Charges, Propelling, for Cannon
United Nations Number: 0242
NSN: 1320-00-9351923
Drawing Number: 9207624
Physical State: Solid
United Nations Packing Group: II
Amount Per Container: 1

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 M13A2 Round Rim Metal Container reference 1a, is used as the shipping container for the Propelling Charge, 155 MM, M4A2 packed in accordance with drawing 7548187.

Reference the following documents:

b. POP Report DOD POP HMTR/AYD 92-017

Instead of testing the specific container used for the Propelling Charge, 155 MM, M4A2 in accordance with drawing 7548187, the metal container is certified to meet the requirements of the Code of Federal Regulations (CFR), Title 49, based on a previously tested metal container which has the following weight and dimensions:

Gross Weight: 42 lbs (19 kg)
Dimensions:
- Inside Diameter = 6 13/16 in. min.
- Outside Diameter = 8 13/32 in. max.
- Inside length = 28 3/4 in. min.
- Outside Length = 32 3/4 in. max.

Stacking Test, Loose Cargo Test and Four Foot Drops were conducted in accordance with Reference 2b. The results indicated no leakage or spillage of contents from the metal container following any of the tests, thus satisfying the requirements of the 49 CFR. This falls within the guidelines for analogy IAW Variation III of Para. 178.601(g)(3) of Reference 2a.

3. CONCLUSION:

Based upon the above POP testing, the following POP symbol has been applied to the metal container in accordance with drawing 7548187.

1A2/Y15/S/**
USA/DOD/AYD

** Last two digits of year packed.