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PERFORMANCE ORIENTED PACKAGING TESTING OF FORTY POUND ALTERNATE CRATERING CHARGE IN M18A2 METAL CONTAINER

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SNIEZEK, FRANK, MICHAEL

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PERFORMANCE ORIENTED PACKAGING (POP), FORTY POUND ALTERNATE CRATERING CHARGE

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

THIS REPORT CONTAINS THE TEST RESULTS OF TESTING PERFORMED ON THE FORTY POUND ALTERNATE CRATERING CHARGE PACKAGED IN AN M18A2 METAL CONTAINER.

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SNIEZEK, FRANK M.

22b. TELEPHONE (Include Area Code)
(201) 724-2156

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I. REPORT NUMBER: DODPOPHMTR/AYD 89-006

II. TITLE: Performance Oriented Packaging Testing of Forty Pound Alternate Cratering Charge in M18A2 Metal Container

AUTHOR: Frank M. Sniezek

PERFORMING ACTIVITY: ARDEC

ADDRESS: Department of the Army
Armament Research, Development, and Engineering Center
HQ. U.S. Armament, Munitions, and Chemical Command
Picatinny Arsenal, New Jersey 07806-5000

DATE: 2Nov89

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1. DATA SHEET

CONTAINER:

TYPE: Drum, Steel, with removable head
UN CODE: 1A2
NOMENCLATURE: Container, Metal, Prop Charge, M18A2
SPECIFICATION: Mil-C-2440
DRAWING NUMBER: 8880530
MATERIAL: Steel
CAPACITY: 312.2 cubic inches
DIMENSIONS: 26 9/32" length x 8 13/32" maximum OD at rim
TARE WEIGHT: 43 lb.

PRODUCT

NAME: Forty Pound Alternate Cratering Charge
DRAWING NUMBER: 9395714
UNITED NATIONS NUMBER: 0048
UNITED NATIONS PACKING GROUP: II
UNITED NATIONS PACKING METHOD: E103
PHYSICAL STATE: solid
AMOUNT PER CONTAINER: one

2. BACKGROUND:

This report contains the test results of the tests performed on the Forty Pound Alternate Cratering Charge packaged in a M18A2 metal container. The testing was performed exclusively using inert charges for Performance Oriented Packaging certification. Tests were performed in accordance with Performance Oriented Packaging test regulations of United Nations "Transport of Dangerous Goods" Fourth Edition.

3. TEST

3.a Six containers were dropped once each from 4 feet on a 3 inch solid steel plate reinforced by 18 inches of crushed rock in 2 different orientations. The tests were conducted at ambient temperature. Three of the containers were dropped 45 degrees on the top, and three of the containers were dropped on the top.

3.b. The Stacking Test was performed by adding a weight of 3600 lb., which is equivalent to a 16' (4.9 meters) stack height, on three containers for 24 hours at ambient temperature. This exceeds the UN requirement of 3 meters (9.8 feet) at 24 hours.

4. RESULTS

The containers passed all tests. None of the contents of the containers were discharged or spilled. The Forty Pound Alternate Cratering Charge packed in the M18A2 container is considered safe for international transportation in accordance with Performance Oriented Packaging Regulations.