

D.O.T. SPECIFICATION 7A, TYPE A
PACKAGING TEST RECORD

DATE: AUGUST 2, 2004 **Page 1 / 4**
PACKAGE IDENTIFICATION: PET SHIPPING SYSTEM,
 DOUBLE SYRINGE WITH NEEDLE, AMMO CAN
 MODEL #001-751

PACKAGE	DESCRIPTION	SIGNED OFF BY
Outer Package: construction material wall strength, lb test dimensions, inches closure internal cushioning	Ammo Case N/A 12" x 6" x 13.5" (h) hinged lid, 1 clasp	<u>CS</u>
Lead Insert Shielding Package: material insert support	cast lead in a contoured shape to supply appropriate shielding to inner pig - open top and bottom metal plate to hold and position lead	
Unit Dose Pig: material closure cushioning dimensions, "	lead enclosed in 0.090" polycarbonate shell and integral 0.040" polypropylene liner Lead: body 0.5" top 1.44" bottom 1.2" plastic screw threads between top and bottom sections N/A 10.2" long x 2.4" diameter	
Lead Shielding Combined:	bottom: 1.2" top: 1.44" sides: varies depending on location from .56 to 1.74"	
Weight: lead insert and case unit dose pig Total Weight	40.2 lb 8.9 lb 58 lb	
Primary Container Unit Dose Pig: syringe nominal volume ml closure content simulation absorbent materials	Two-5 cc syringes or 3 cc or combination 3.5 ml or 1.5 ml respectively needle with cap water, colored absorbent sheet (001-771)	
Examination of test sample before tests: Describe: defects distortions deterioration printing imperfections	none none none none	

DATE:**AUGUST 2, 2004****Page 2 / 4****PACKAGE IDENTIFICATION:****PET SHIPPING SYSTEM,****DOUBLE SYRINGE WITH NEEDLE, AMMO CAN****MODEL #001-751**

TESTS	NOTES	SIGNED OFF BY
TEST RECORD:	Perform tests in order and attach a photographic record	
WATER SPRAY TEST: 49 CFR 173.465 (b) (must be performed before remaining tests) Spray Package: from 1 or 4 sides rate approx. 2 inches / hour time at least 1 hour Describe Results:	spray from 4 simultaneously greater than 2 inches / hour sprayed for 1+ hours The water spray did not affect the metal shipping container. The inside of the case was dry. NOTE: If the package was sprayed from 4 sides simultaneously, the compression test may begin up to 2 hrs. after the water is turned off. If the spray is from 1 direction on each side sequentially, the compression test must begin within 1 hour.	<u>CS</u> <u>CS</u> <u>CS</u>
COMPRESSION TEST: 49 CFR 173.465 (d) performed December 1999 24 hours compression: weight in lbs. clock time - start clock time - finish Describe Results:	greater than 600 pounds N/A timer, 24 hours NOTE: Compression test was performed by placing a sheet of plywood with lead bricks onto the top of the plastic case. The heaviest system weighs 58 lbs. The stacking test is (2 lb./in ² x vertical projected area of package, which would be 144 lbs or 5x's the weight of the package) which is 290 lbs. We used over 600 lbs. of lead bricks on top of the shipping system. There was no damage or effect to the plastic container. None of the inner shields were damaged during this test.	<u>CS</u> <u>CS</u> <u>CS</u> <u>CS</u>

DATE: AUGUST 2, 2004 **Page 3 / 4**
PACKAGE IDENTIFICATION: PET SHIPPING SYSTEM,
 DOUBLE SYRINGE WITH NEEDLE, AMMO CAN
 MODEL #001-751

TESTS	NOTES	SIGNED OFF BY
<p>FREE DROP TEST: onto flat concrete surface</p> <p>Drop Test 1 foot onto 8 corners: 49 CFR 173.465 (c) (2)</p> <p>Describe Results:</p> <p>Drop Test 4 feet for maximum damage: 49 CFR 173.465 (c) (1)</p> <p>Describe Results:</p> <p>Drop Test 30 feet: 49 CFR 173.466 (a) (1)</p> <p>Describe Results:</p>	<p>dropped in sequence</p> <p>corners are dented slightly and scratched metal on case side is dented pigs & insert are OK – no leakage</p> <p>drop onto top corner of can at latch side</p> <p>case scratched – stayed together pigs unscrew and are OK – no damage</p> <p>case taken to top of building and dropped 30 feet onto concrete</p> <p>ammo can bent on bottom pig tops unscrew, bottoms are stuck in insert syringes are OK no leakage into case absorbent material is dry cap threads are cracked on 1 pig – but stayed together other cap is OK top of case opens and closes</p> <p>PASSES TEST</p>	<p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p>
<p>PENETRATION TEST: using 1.25 in. diameter bar with hemispherical end weighing 13.2 lbs. 49 CFR 173.466 (a) (2) and IATA 10.6.3.5.2</p> <p>Drop from 67 inches: strike point clock time</p> <p>Describe Results:</p>	<p>center of long side of case N/A</p> <p>rod bounced off side indented, top edge of side slightly bent pigs are OK syringes did not leak</p> <p>PASSES TEST</p>	<p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p>

DATE:

AUGUST 2, 2004

Page 4 / 4

PACKAGE IDENTIFICATION: PET SHIPPING SYSTEM,

DOUBLE SYRINGE WITH NEEDLE, AMMO CAN

MODEL #001-751

TESTS	NOTES	SIGNED OFF BY
ACCEPTANCE CRITERIA:	<ol style="list-style-type: none">1. Damage to the packaging may not cause loss or dispersal of simulated contents.2. Damage to the packaging may not cause an increase in calculated surface radiation exposure.3. The test record must be complete and accurate, and the photographic record attached.	

Tests performed by:



Initials CS



Initials KD

Date: 8/12/04