


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

**DATE: MAY 26, 2006**  
**PACKAGE IDENTIFICATION: SINGLE OR MULTIPLE DOSE SHIPPING SYSTEM,  
 MODEL #001-724**

PACKAGE	DESCRIPTION	SIGNED OFF BY
Outer Case: manufacturer of case construction material wall strength, lb test dimensions, inches closure internal cushioning	Zero Plastic rotation molded polyethylene N/A 11.75x11.75x12.5 (h) hinged lid, 2 clasps high density polyethylene foam	
Lead Insert Shielding Package: material   insert support	<ul style="list-style-type: none"> <li>▪ cast lead in a contoured shape to supply appropriate shielding to inner pig - open top and bottom on lead</li> <li>▪ 2 lead sheets in bottom of case under contoured lead</li> <li>▪ contoured lead varies from 0.232" to 0.699", bottom lead is 0.75"</li> <li>▪ metal plate to hold and position lead</li> </ul>	
Vial Pig (Model #001-706): material   closure  cushioning dimensions, "	Pig bottom section: lead encased in .065" steel outer shell top section: aluminum shell filled with lead Lead: body 1" top 1.75" bottom 1"  plastic threads on bottom section aluminum threads on top section N/A 6.72" tall x 4.13" diameter	
Lead Shielding Combined: outer shield 0.232" to 0.699"	bottom: 1" + 0.75" = 1.75" top: 1.75" + 0" = 1.75" sides: varies depending on location from 1.232" to 1.65"	
Weight: outer shield and case vial pig Total Weight	28.4 lbs 21.3 lbs 49.7 lbs	
Primary Container Unit Dose Pig: vial/bottle nominal volume ml in vial closure content simulation absorbent materials	glass vial 30ml approximately 20ml crimp seal septum colored water absorbent sheet (001-771)	
Examination of test sample before tests: Describe: defects distortions deterioration printing imperfections	none none none none	

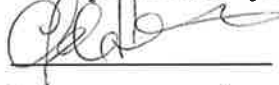
TESTS	NOTES	SIGNED OFF BY
TEST RECORD:	Perform tests in order and attach a photographic record	
<p><b>WATER SPRAY TEST:</b>  49 CFR 173.465 (b)  (must be performed before remaining tests)</p> <p><b>Spray Package:</b>  from 1 or 4 sides  rate approx. 2 inches / hour  time at least 1 hour</p> <p><b>Describe Results:</b></p>	<p>spray from 4 simultaneously  greater than 2 inches / hour  sprayed for 1 hour</p> <p>The water spray did not affect the plastic shipping container.</p> <p>There was some water inside the case.</p> <p><b>NOTE:</b>  If the package was sprayed from 4 sides simultaneously, the other tests may begin up to 2 hrs. after the water is turned off.</p> <p>If the spray is from 1 direction on each side sequentially, the compression test must begin within 1 hour.</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>



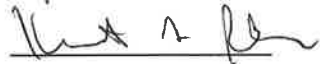
<p><b>PENETRATION TEST:</b>  49 CFR 173.466 (a) (2) and IATA 10.6.3.5.2  using 1.25 in. diameter bar with  hemispherical end weighing 13.2 lbs.</p> <p>Drop from 67 inches:  strike point  clock time</p> <p>Describe Results:</p>	<p>top of case between ribs  N/A</p> <ul style="list-style-type: none"> <li>▪ the bar bounced off - caused slight indentation and a small crack in top</li> <li>▪ case stayed together</li> <li>▪ the rod hit the handle of the vial pig and bent the handle</li> <li>▪ the vial pig had no other damage</li> <li>▪ it lifted out of the case</li> <li>▪ the pig top unscrewed without a problem</li> <li>▪ the vial is undamaged and did not leak</li> </ul> <p><b>PASSES TEST</b></p>	<p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p>
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TESTS	NOTES	SIGNED OFF BY
<p>COMPRESSION TEST: 49 CFR 173.465 (d) performed December 1999 24 hours compression: weight in lbs. clock time - start clock time - finish</p> <p>Describe Results:</p>	<p>greater than 400 lbs N/A timer, 24 hours</p> <p>NOTE: Compression test was performed by placing a sheet of plywood with lead bricks onto the top of the plastic case. The case weighs 50 lbs</p> <p>The weight calculation is either (2 lb./in<sup>2</sup> x vertical projected area of package, which would be 277 lbs) or (5x's the weight of the package, which is 250 lbs.)</p> <p>We used over 400 lbs of lead bricks on top of the shipping system.</p> <p>There was no damage or effect to the plastic case. The vial shield was not damaged during this test.</p> <p><b>PASSES TEST</b></p>	<p><u>CS</u> <u>CS</u> <u>CS</u></p> <p><u>CS</u></p> <p><u>CS</u></p>
<p>ACCEPTANCE CRITERIA:</p>	<ol style="list-style-type: none"> <li>1. Damage to the packaging may not cause loss or dispersal of simulated contents.</li> <li>2. Damage to the packaging may not cause an increase in calculated surface radiation exposure.</li> <li>3. The test record must be complete and accurate, and the photographic record attached.</li> </ol>	

Tests performed by:



Initials CS



Initials HP

Date: 6-21-06