

APPENDIX 21

UNITIZATION PROCEDURES FOR AMMUNITION AND COMPONENTS PACKED IN METAL OR PLASTIC BOXES ON 4-WAY ENTRY PALLETS

**CARTRIDGE, 40MM, PACKED 32 PER PA120
METAL BOX, UNITIZED 42 BOXES PER 45-1/2”
X 35” PALLET; APPROX BOX SIZE 18-3/4” L
X 6-3/8” W X 10-3/8” H**

NOTICE: THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4232-20PM1007.

DISTRIBUTION STATEMENT A:

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DISTRIBUTION IS UNLIMITED.**

U.S. ARMY MATERIEL COMMAND DRAWING

<p>APPROVED, COMBAT CAPABILITIES DEVELOPMENT COMMAND ARMAMENTS CENTER</p> <p>HANSSEN.JO SEPH.W.1376 495538</p> <p><small>Digitally signed by HANSSEN.JOSEPH.W.1 376495538 Date: 2021.01.28 09:45:49 -06'00'</small></p> <p style="text-align: right;">FCDD-ACE-LTP</p>	<p>CAUTION: VERIFY PRIOR TO USE AT https://www.dau.edu/cop/ammo/Pages/Default.aspx THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</p>		<p>DO NOT SCALE</p>		<p>SEPTEMBER 1991</p>																				
<p>APPROVED, U.S. ARMY JOINT MUNITIONS COMMAND</p> <p>WARD.GINA. M.1369379808</p> <p><small>Digitally signed by WARD.GINA.M.1369379808 Date: 2021.04.14 12:21:09 -05'00'</small></p> <p style="text-align: right;">AMSJM-MLT</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DESIGN ENGINEER</td> <td style="width: 50%;">BASIC</td> </tr> <tr> <td>REV.</td> <td>SANDRA SCHULTZ</td> </tr> </table>	DESIGN ENGINEER	BASIC	REV.	SANDRA SCHULTZ	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">ENGINEERING DIVISON</td> <td style="width: 50%;">FIEFFER.LAUR A.A.1230375727</td> </tr> <tr> <td>TEST ENGINEER</td> <td><small>Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2021.01.08 08:45:35 -06'00'</small></td> </tr> </table>	ENGINEERING DIVISON	FIEFFER.LAUR A.A.1230375727	TEST ENGINEER	<small>Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2021.01.08 08:45:35 -06'00'</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TEST REPORT</td> <td style="width: 50%;">FELICIANO.AD IN.1259200373</td> </tr> <tr> <td>EXPLOSIVE SAFETY DIRECTORATE</td> <td><small>Digitally signed by FELICIANO.ADIN.1259200373 Date: 2021.01.12 06:40:41 -06'00'</small></td> </tr> </table>	TEST REPORT	FELICIANO.AD IN.1259200373	EXPLOSIVE SAFETY DIRECTORATE	<small>Digitally signed by FELICIANO.ADIN.1259200373 Date: 2021.01.12 06:40:41 -06'00'</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">CLASS</td> <td style="width: 50%;">DIVISION</td> </tr> <tr> <td>19</td> <td>48</td> </tr> </table>	CLASS	DIVISION	19	48	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DRAWING</td> <td style="width: 50%;">FILE</td> </tr> <tr> <td>4232/21</td> <td>20PM1007</td> </tr> </table>	DRAWING	FILE	4232/21	20PM1007
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<p>APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p>BRAILS福德.KEITH H.ANTHONY.10286 55661</p> <p><small>Digitally signed by BRAILS福德.KEITH.ANTHONY.1 1028655661 Date: 2021.04.14 16:58:11 -05'00'</small></p> <p style="text-align: right;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">TEST REPORT</td> <td style="width: 50%;">NA</td> </tr> <tr> <td>EXPLOSIVE SAFETY DIRECTORATE</td> <td>BRAILS福德.KEITH H.ANTHONY.10286 55661</td> </tr> <tr> <td></td> <td><small>Digitally signed by BRAILS福德.KEITH.ANTHONY.1 1028655661 Date: 2021.01.14 08:04:11 -06'00'</small></td> </tr> </table>	TEST REPORT	NA	EXPLOSIVE SAFETY DIRECTORATE	BRAILS福德.KEITH H.ANTHONY.10286 55661		<small>Digitally signed by BRAILS福德.KEITH.ANTHONY.1 1028655661 Date: 2021.01.14 08:04:11 -06'00'</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">REVISION NO. 6</td> <td style="width: 50%;">JANUARY 2021</td> </tr> <tr> <td colspan="2" style="text-align: center;">SEE THE REVISION LISTING ON PAGE 2</td> </tr> </table>	REVISION NO. 6	JANUARY 2021	SEE THE REVISION LISTING ON PAGE 2														
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PALLET UNIT DATA				
ITEMS INCLUDED		*HAZARD CLASS AND DIVISION		APPROX WEIGHT (LBS)
NSN	DODIC	QD CLASS	COMP GROUP	
1310-				
01-315-1636	B472	I NERT		1, 975
01-369-1902	B472	I NERT		1, 975
01-319-1541	B542	1. 1	E	1, 975
01-354-8745	B542	1. 1	E	1, 975
01-419-8203	B542	1. 1	E	1, 975
01-564-2160	B542	1. 1	E	1, 975
01-316-9973	B576	1. 4	C	1, 975
01-572-0689	B576	1. 4	C	1, 975
01-317-5948	B584	1. 4	C	1, 975
01-572-0693	B584	1. 4	C	1, 975
01-464-4117	BA11	1. 4	C	1, 975
01-472-9916	BA12	1. 4	C	1, 975
01-541-8181	BA30	1. 4	C	1, 975
01-670-9894	BA55	1. 4	G	1, 975

*HAZARD CLASSIFICATION DATA CONTAINED IN THE ABOVE CHART IS FOR GUIDANCE AND INFORMATIONAL PURPOSES ONLY. VERIFICATION OF THE SPECIFIED DATA SHOULD BE MADE BY CONSULTING THE MOST RECENT JOINT HAZARD CLASSIFICATION SYSTEM LISTING OR OTHER APPROVED LISTING(S).

REVISIONS

REVISION NO. 1, DATED MARCH 1996, CONSISTS OF:

1. ADDING ITEM TO PALLET UNIT DATA CHART.
2. DELETING GENERAL NOTE RELATING TO STRAP CUTTER AND RE-LETTERING OTHER GENERAL NOTES.
3. CHANGING WEIGHT OF ITEM.
4. CHANGES PER ECP M6S3042.

REVISION NO. 2, DATED DECEMBER 1999, CONSISTS OF:

1. ADDING ITEM TO PALLET UNIT DATA CHART.
2. CHANGE TO NEW DRAWING FORMAT.
3. ADDING GENERAL NOTE "H" RELATING TO PA120 CONTAINER.

REVISION NO. 3, DATED DECEMBER 2004, CONSISTS OF:

ADDING A NATIONAL STOCK NUMBER AND ASSOCIATED DATA TO PALLET UNIT DATA BLOCK ON PAGE 2.

REVISION NO. 4, DATED SEPTEMBER 2008, CONSISTS OF CHANGES PER ECP R08K2006 - NOR 004 INCLUDING:

UPDATING SPECIFICATION FOR PALLET.

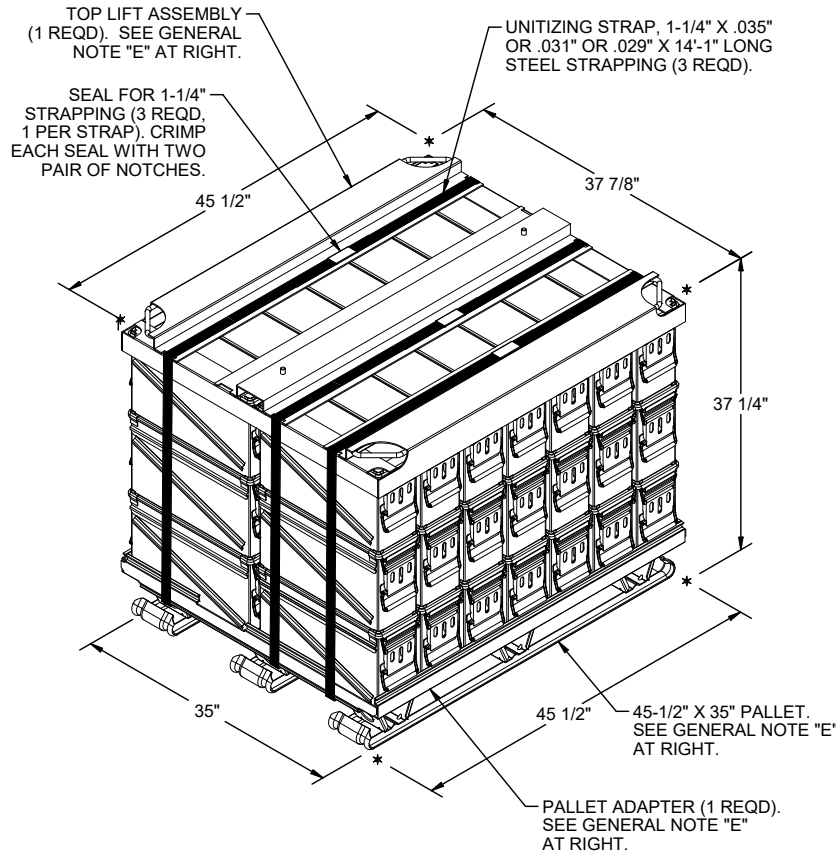
REVISION NO. 5, DATED MAY 2012, CONSISTS OF CHANGES PER ECP R11K2054 - NOR 001 INCLUDING:

1. ADDING ITEMS TO PALLET UNIT DATA CHART.
2. CHANGING DRAWING NUMBER IN GENERAL NOTE "H".

REVISION NO. 6, DATED JANUARY 2021, CONSISTS OF CHANGES PER ECP R19S2213 - NOR 018 INCLUDING:

1. ADDING ITEM TO PALLET UNIT DATA CHART.
2. UPDATING THE SIGNATURE BLOCKS ON COVER PAGE.
3. ADDING ADDITIONAL DRAWING REFERENCE TO GENERAL NOTE "H".

GENERAL NOTES



PALLET UNIT
SEE GENERAL NOTE "B" AT RIGHT.

- A. THIS APPENDIX CANNOT STAND ALONE BUT MUST BE USED IN CONJUNCTION WITH THE BASIC UNITIZATION PROCEDURES DRAWING 19-48-4232-20PM1007. TO PRODUCE AN APPROVED UNIT LOAD, ALL PERTINENT PROCEDURES, SPECIFICATIONS AND CRITERIA SET FORTH WITHIN THE BASIC DRAWING WILL APPLY TO THE PROCEDURES DELINEATED IN THIS APPENDIX. ANY EXCEPTIONS TO THE BASIC PROCEDURES ARE SPECIFIED IN THIS APPENDIX.
- B. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE BOXES AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- C. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS APPENDIX.

CARLOADING	- - - -	19-48-4246/21-5PM1005
TRUCKLOADING	- - - -	19-48-4247/21-11PM1005
STORAGE	- - - -	19-48-4251/21-1-2-3-4-14-22PM1005
END OPENING ISO		
CONTAINER	- - - -	19-48-4249/21-15PM1011
MILVAN	- - - -	19-48-4248/21-15PM1010
SIDE OPENING ISO		
CONTAINER	- - - -	19-48-4271/21-15PM1015
- D. IF ITEMS COVERED HEREIN ARE UNITIZED PRIOR TO ISSUANCE OF THIS REVISION TO THIS APPENDIX, THE BOXES NEED NOT BE REUNITIZED SOLELY TO CONFORM TO THIS REVISION.
- E. FOR DETAILS OF THE PALLET, PALLET ADAPTER AND TOP LIFT ASSEMBLY SEE MILITARY SPECIFICATIONS MIL-P-70786, MIL-A-70788 AND DAC DRAWING ACV00124.
- F. THE UNITIZATION PROCEDURES DEPICTED HEREIN MAY ALSO BE USED FOR UNITIZING OTHER AMMUNITION ITEMS WHEN IDENTIFIED BY DIFFERENT NATIONAL STOCK NUMBERS (NSN) THAN WHAT IS SHOWN ON PAGE 2, PROVIDED THE ITEM IS PACKED IN THE PA120 METAL BOX. THE EXPLOSIVE CLASSIFICATION OF OTHER ITEMS MAY BE DIFFERENT THAN WHAT IS SHOWN.
- G. EMPTY OR REJECT PA120 METAL BOXES WILL BE USED AS FILLER BOXES AS NECESSARY. IF 14 FULL BOXES ARE TO BE OMITTED, ONE FULL LAYER OF BOXES WILL BE OMITTED. WHEN (EMPTY) FILLER BOXES ARE USED IN PLACE OF OMITTED BOXES TO COMPLETELY FILL OUT A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN ARDEC DRAWING 12982865.
- H. FOR DETAILS OF THE PA120 CONTAINER REFER TO ARDEC DRAWING NO. 12928042 OR 13071651.

42 BOXES OF 40MM CTG (32 PER BOX) @ 42 LBS	- - - - -	1,764 LBS (APPROX)
DUNNAGE	- - - - -	112 LBS
PALLET	- - - - -	99 LBS
<hr/>		
TOTAL WEIGHT	- - - - -	1,975 LBS (APPROX)
CUBE	- - - - -	37.6 CU FT (APPROX)

BILL OF MATERIAL			
METAL PALLET, 45-1/2" X 35"	-	1 REQD	99 LBS
PALLET ADAPTER	- - - - -	1 REQD	35 LBS
TOP LIFT ASSEMBLY	- - - - -	1 REQD	70 LBS
STEEL STRAPPING, 1-1/4"	-	42.25 REQD	6.41 LBS
SEAL FOR 1-1/4 STRAPPING	- - -	3 REQD	NIL

