Packaging Remediation Worksheet

Rev C

FSC: _____ NIIN: _____ COST: _____ Date: _____

Nomenclature: _____

1	**Record 12 Digit Packaging Code**						
	MOP	CLN & DRY	PRES MAT	WRAP	CUSH	THK	UNIT CONT

2 **Supplemental Instructions:**
None: ☐

3 ☐ **Check here if item is ESDS (i.e. All MOP GX or MOP 41 with ESD Code B or D or SPC MKG = 39)**

4	SPC MKG	None: ☐	In the Clear MIL-STD-2073-1 Appendix J-X	Any Additional Markings?

Use MIL-STD-2073-1, Appendix J, Chapter 5 Section 5.2.3 and Table II as indicated below

5 MOP

MOP Description: Appendix J-I or J-Ia & Refer to Chapter 5 for process

MOP Barrier Material: Table II

6 CLN & DRY — Appendix J-II

☐ 0 = No Requirement

☐ 1 = Clean using any suitable process that is not injurious to the item

7 PRES MAT — Appendix J-III

8 WRAP — Appendix J-IV

9 CUSH — Appendix J-V

THK — Appendix J-VI

☐ ***inches*** Minimum cushioning thickness (always use as much as required to prevent item movement)

10 UNIT CONT — Appendix J-VII and Table II

11 **# of Desiccant Units**
MOP 50 ONLY
☐ ***Units*** Use Page 2, Section II of this worksheet to Calculate

Barrier material selection:
1. **Table II** of **MIL-STD-2073-1** lists all of the approved barrier materials for each MOP.

2. If you do not have the indicated barrier material for a given MOP, it is acceptable to use a barrier material offering same or higher level of protection. * Exception: MIL-PRF-81705 Type I barrier material is for ESDS Only.

Acceptable Barrier Material for each MOP as per Table II, MIL-STD-2073-1
MOP 31 or 32:
Use MIL-PRF-22191 Type III Class 1 or 2; or A-A-3174 Type I or II Class 1

MOP 33:
Use MIL-PRF-121 Type I
Unless Unit Container Code is SD or B2 then use MIL-PRF-22191 Type I or II

MOP 41, 42, 43, 51, 52, 53:
Use MIL-PRF-131 Class 1
Unless Unit Container code is SE or B3, then use MIL-PRF-22191 Type I
Unless Unit Container code is SK then use MIL-PRF-131 Class 3
Note: For MOP 53 use MIL-PRF-22191 Type I to create a window in the MIL-PRF-131 Class 1 bag to view the humidity indicator

MOP GX
Use MIL-PRF-81705 Type I (no exceptions)

Barrier Material Worksheet NIIN: _____ Date: _____

Record Item Dimensions in inches: **L = _____ W = _____ H = _____**

Note 1: Item dimensions **must reflect** any wrap, cushion and/or container applied to the item

Note 2: When recording L, W & H above, **add 1" to every measured dimension**. Example: Measured L=10" Record L=11"

Note 3: Adding an extra inch to every dimension and using the formulas below will help ensure the item fits into the bag and will allow the bag to be opened and resealed multiple times should the item require inspection.

MOP 30's, 40's, GX:

Barrier Length = 2(W) + 2(H) + 5"

= 2 (_____) + 2 (_____) + 5"

= _____ + _____ + 5"

= ☐ inches

Barrier Width = L + H + 3"

= _____ + _____ + 3"

= ☐ inches

MOP 50's:

Barrier Length = 2(W) + 2(H) + 5"

= 2 (_____) + 2 (_____) + 5"

= _____ + _____ + 5"

= ☐ inches

Barrier Width = L + H + 5"

= _____ + _____ + 5"

= ☐ inches

Example Calculation: Given MOP= 41 Recorded Item Dimensions: L = 14", W=8", H=5"

Barrier Length = 2(W)+2(H)+5"
= 2(8") + 2(5") + 5"
= 16" + 10" + 5"
= 31"

Barrier Width = L+H+3
= 14" + 5" + 3"
= 22"

Desiccant Calculation Worksheet

Barrier Material Formula (requires area calculation):

$$U = .011(A) + 8(D_1) + 3.6(D_2) + 2(D_3) + .5(D_4)$$

Rigid Container Formula (requires volume calcualtion):

$$U = .0007(V) + 8(D_1) + 3.6(D_2) + 2(D_3) + .5(D_4)$$

Key:

U = *Total number of units of dessicant (what we are solving for)*

A = Area of total barrier material (length x width) in square inches

V = Volume of rigid container in cubic inches

Volume of a Cylinder: $V = 3.141(radius^2)(height)$

Volume of a Rectangular or Square Container: $V = length * width *$ height

D_x = *All D values refer to the weight in pounds of the stated material type that will be sealed inside the barrier material.*

D_1 = *Cellulosic material (i.e. wood, fiberboard, cellulosic cushioning, paper wraps)*

D_2 = *Bound synthetic or vegetable fibers (i.e. rubberized hair)*

D_3 = *Fiberglass*

D_4 = *Synthetic foam and rubber (i.e. polyurethane, polyethylene cushioning)*

Note: If a D_x material is not used it is set equal to zero in the formula.

Note: If using barrier bag formula, use the Barrier Material Worksheet to determine barrier material dimensions before begining this worksheet.

Step 1. *Solve for barrier material Area or contianer Volume (all dimensions in inches)*:

$A = LxW$ $V_{Rectangular} = LxWxH$ $V_{cylinder} = 3.141(radius^2)(height)$

Step 2. *Record the wieght of packaging materials (all weight in pounds)*:

$D_1 =$ _____lbs $D_2 =$ _____lbs $D_3 =$ _____lbs $D_4 =$ _____lbs

Step 3. *Plug values into correct formula and solve (round up answer)*:

Barrier Material Formula: $U = .011(A) + 8(D_1) + 3.6(D_2) + 2(D_3) + .5(D_4)$=

$U = .011(\quad) + 8(\quad) + 3.6(\quad) + 2(\quad) + .5(\quad)$=

Container Formula: $U = .0007(V) + 8(D_1) + 3.6(D_2) + 2(D_3) + .5(D_4)$=

$U = .0007(\quad) + 8(\quad) + 3.6(\quad) + 2(\quad) + .5(\quad)$=