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### Fire & Rescue Division Hazardous Materials Section

## **BULLETIN # 25** (Version 1.1)

### **STORAGE CONTAINERS and PROPER MARKINGS (Onboard HMRT Apparatus)**

Storage units or kits containing hazardous materials equipment and tools, when stored onboard a Haz-Mat response unit, should be marked in such a way as to always properly identify its contents. Many commercially available plugging & patching kits, detection systems, and electronic monitoring devices come with their own Pelican style case or steel tool chest. However, some items that must be obtained by the Haz-Mat Team in order to be in compliance with the FIRESCOPE SEL's recommended inventory, do not come in a pre-supplied case or kit.

This Bulletin should be used as a guide to insure the Haz-Mat Team:

1. Is maintaining properly pre-packaged and marked systems in original containers
2. Is properly marking in-house-developed storage unit systems
3. Is avoiding "mixing and matching" different items from different kits

During a Haz-Mat Company Team Typing inspection, one of the inspection components is to spot-check and confirm that storage units are properly marked, that the contents are complete, that commercially available pre-assembled kits are maintained in the storage unit system as supplied, and that all kits and storage units are in accordance with inspection requirements.

#### **PROPER IDENTIFICATION OF PRE-PACKAGED SYSTEMS:**

It is absolutely imperative that all required inventory items or their storage units (some are in bulk such as test tubes, sampling jars, or spreadable absorbent powders) are properly marked in such a way as to be readily and correctly identified by a team member. Some of these industrially available items come with their own design of a pre-packaged system or kit in a steel case or a durable plastic case such as the Pelican brand. These cases are usually very durable and long lasting. The following suggestions are forwarded:

1. These kits should be clearly marked on the outside, if not already done so by the Manufacturer.  
*In most cases the Manufacturer's supplied storage container or kit is already properly marked. Insurance must be practiced to always properly indicate the contents of a kit or a unit of storage. Examples would be "Drager Colorimetric Kit, Multi-Sensing", or "Grounding Cables and Clamps". In some cases the supplied method of storage container or kit as supplied by the Manufacturer is not appropriately marked. In this case the storage unit or kit should be properly marked. An example would be some of the encapsulating acid and alkali*

neutralizing agents which are shipped in bulk. A smaller 5-gallon container used as a storage unit on board the apparatus will need to be properly marked as to its contents and intent of use.

2. Unless the kit or case needs replacing, these kits should be kept integral.  
*Some kits come with many parts, complimentary items, and interchangeable pieces. It is designed to be a complete ready-to-go "system". Examples would be the Military Kits M272 and M18A2, or the Chlorine Kits, or some of the commercially available plugging and patching kits. These kits must be kept integral. Various pieces or parts of these types of kits should not be separated and re-distributed amongst other kits.*
3. If the kit or case needs new marking or labeling, the description should be exact, and as close to the original description as possible.  
*If the pre-applied markings become illegible, they should be replaced with labeling or a descriptive inscription that matches the original description. If the kit or unit of storage has no such labeling or marking, it should be marked as explained, and further should not include any information that was not supplied by the manufacturer. An example would be the re-packaging of the various Absorbent Pads, Pillows, Sheets, and Socks. These are often shipped by the Manufacturer in large bulky cardboard boxes or plastic shrink-wrap. It is therefore wise and recommended to re-package each specifically different Absorbent component in its own smaller storage unit to save space. However, the storage unit MUST be properly identified on the outside to indicate its contents. Examples would be "Absorbent – General Purpose – Pads and Rolls", or "Encapsulating Spreadable Powder, Non-Polar Solvents Only".*
4. Pre-supplied kits, cases, or units of storage should not be marked to indicate a capability of the contents for which it was never intended, nor to imply it contains materials or tools it does not have.  
*Many of the required SEL items have specific uses, as defined and described in the "Description" section of the SEL. Assumptions cannot be applied to imply the item(s) can be used for other purposes. An example would be the use of the Chlorine "A" Kit. Except for Hydrogen Chloride cylinders and Chlorine cylinders, and the Sulfur Dioxide cylinder with the proper gaskets, this kit cannot and must not be used on any other gas cylinder container containing a gas other than the three as noted. Another example would be the specialized gas detection unit for Freon refrigerant agents. This unit must be properly marked as for "Freons only", and additional information should be included to warn against using this device for other non-Freon refrigerants, - such as "Do Not Use For Sulfur Dioxide or Ammonia", as damage may result to the detection unit.*
5. Some kits or individual equipment items require constant replacement of used or expended contents or parts. These contents or parts must be replaced only by that as recommended by the manufacturer of the kit or equipment items.  
*In many cases the matter of maintaining a certification capability must always be considered. Maintaining the required certification necessitates that only those parts that need replacing be that as approved and/or recommended by a nationally recognized standard or the manufacturer. An example would be the replacement of gloves for specified chemical protective clothing ensembles. Generic "over-the-counter" gloves are not acceptable as replacement. Replacement gloves should be obtained from the manufacturer of the original glove, or from the manufacturer of the garment ensemble. Another example would be the replacement of batteries for Intrinsically Safe certified walkie talkies. The use of a lower cost non-certified battery negates the walkie talkie intrinsically safe properties, and it also voids all certifications.*

#### **PROPERLY MARKING IN-HOUSE-DEVELOPED STORAGE UNIT SYSTEMS:**

1. These kits should be clearly marked on the outside.  
*In many cases an in-house derived method of storage must be provided for some of the equipment items. Insurance must be practiced to always properly indicate the contents of an in-house designed kit or a unit of storage. An example would be the development of a small kit to contain all of the individual items required for the "Zone Marking Kit" and so labeled, instead of having many of the different contents scattered among many other different containers.*
2. In-house prepared units of storage should ONLY be marked to indicate a capability of the contents for which it was intended.  
*The intended usage of the contents must be clearly understood and conveyed by proper labeling. In-house applied label markings should not imply the unit of storage contains materials or tools it does not have. Nor should these in-house applied label or container markings imply the unit of storage contains materials that can be used in a manner it was not intended or approved. An example would be the marking of a storage unit as*

*“Encapsulating Spreadable Powder, Formaldehyde”, when in fact the manufacturer’s brochure and descriptive use instructions do not specifically indicate or authenticate the substance can be used for Formaldehyde.*

#### **AVOID “MIXING and MATCHING” OF DIFFERENT KITS:**

1. Individual items from one or more pre-supplied kits should not be removed and re-assembled in another “in-house” designed kit.  
*Parts of several different kits should not be split up and re-assembled in numerous other kits, without regard to the original inherent intent, application and use of the original source. An example would be the separation of a commercially available “Evidence Collection Kit”, and the re-packaging of some of the parts into a number of other separate in-house developed storage units. It could be that some of the necessary complimentary parts, including use instructions, are now spread out and separated into several different packaging or storage units, and this can become confusing. This can lead to improper use and application of the items, and at the very least not being able to locate all of the necessary complimentary parts in a timely manner. Another specific example is the “Biological Container” and packaging system, as supplied by the Manufacturer. It is a complete integral system, and the individual parts cannot and should not be re-distributed into several other storage systems. It must be kept together.*
2. Individual items from two or more pre-assembled commercially available kits should not be combined into one larger kit.  
*Some kits appear to have very similar function, such as the many mechanical plugging and patching kits. But the reason they are divided into several different commercial kits by the Manufacturer(s), and are also individually described in the SEL, is because there are or might be subtle differences of intent of use. It is unwise to combine two or more of these kits into one larger kit (even if there is room in one of the supplied kit units), as it can cause a great deal of confusion on the user. Some parts of one kit cannot be used with or compliment the parts of the other kit. This practice should not be encouraged.*

#### **THE ISSUES OF WARRANTY, CERTIFICATION and USER LIABILITY:**

*WARRANTY: Most all manufacturers of pre-assembled kits that are provided in their standard storage units back their products with a warranty. The warranty covers their item(s) or device so long as it is properly stored in accordance to their recommendations, and maintained in the storage unit that they supplied. The warranty may be voided if their product is not maintained and stored as originally purchased.*

*CERTIFICATION: Even if a particular equipment piece does not come with its own storage unit, such as chemical protective clothing (CPC) ensembles, the equipment item may be composed of several pre-assembled individual parts, and the ensemble as a whole must be kept integral exactly as supplied by the manufacturer. In this example, replacement gloves must only be those approved by and as originally provided by the manufacturer of the CPC ensemble. Using anything else will void the warranty. Furthermore, the practice of not using the recommended replacement items or individual parts will also void any certification that the ensemble has earned through the testing process. This includes the loss of the implied warranty of performance, as assured in Performance Standards provided by NFPA, ASTM, ANSI, UL and FM.*

*LIABILITY: If injury were to occur to a member of an emergency response team while that member was using a tool, kit, or protective clothing ensemble that was not maintained as recommended and originally supplied by the manufacture nor in accordance with any applicable performance standard, including storage requirements and replacement parts, the agency may render itself vulnerable to liability litigation.*

#### **IN-HOUSE MADE LABELS:**

In-house labels are best made using AVERY self-adhesive label # 5163 or equal, each label is 2” high x 4” wide (or other approximate dimensions suitable for the specific container, using a different AVERY label).

A variety of sample labels follows on the next page.

**SAMPLE LABELS USING AVERY # 5163:**

Any bold font can be used. However, best to use san-serif (Caribi, Arial, Courier New, Typewriter) rather than serif (Times Roman). Design or layout of label can be agency dependent and based upon apparatus configuration, compartment and tray identification, and type and size of containers. Other information could be included in the label as appropriate, such as the SEL Inventory #.

Shown Almost Actual Size - - - 2" high x 4" wide each

<b>CONTENTS Or NAME:</b>			<b>Absorbent Pillows, For Non-Polar Solvent ONLY</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>TC-1</b>	<b>-</b>	<b>1</b>	
<b>APPARATUS #: OES-HM xxxx</b>			

<b>CONTENTS Or NAME:</b>			<b>Zone Marking Kit</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>C-3</b>	<b>3</b>	<b>27</b>	
<b>APPARATUS #: OES-HM xxxx</b>			

<b>CONTENTS Or NAME:</b>			<b>SAMPLING KIT</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>FR-1</b>	<b>3</b>	<b>12</b>	
<b>APPARATUS #: OES-HM xxxx</b>			

<b>CONTENTS Or NAME:</b>			<b>GLOVES - Replacement Liquid Splash NFPA 1992</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>S-4</b>	<b>B</b>	<b>S-41</b>	
<b>APPARATUS #: OES-HM xxxx</b>			

<b>CONTENTS Or NAME:</b>			<b>SAMPLING JARS, EPA PROTOCOL B Clear and Amber</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>FR-1</b>	<b>3</b>	<b>13</b>	
<b>APPARATUS #: OES-HM xxxx</b>			

<b>CONTENTS Or NAME:</b>			<b>GLOVES - HIGH TEMPERATURE &amp; CRYOGENIC</b>
<b>COMPARTMENT</b>	<b>TRAY</b>	<b>CONTAINER #</b>	
<b>S-4</b>	<b>B</b>	<b>S-7</b>	
<b>APPARATUS #: OES-HM xxxx</b>			