Alert 19-02: Steel Drum UN/DOT Marking Requirements

Shippers that use steel drums to transport their hazardous materials are sometimes questioned about certain aspects of the United Nations (UN) drums, even though the drums are fully compliant with the Hazardous Material Regulations (HMR) and international regulations. In cases of export shipments, the issue that frequently arises is how the UN mark is applied to the steel drums. This issue is encountered upon arrival overseas during foreign inspection.

Regarding the complete UN packaging marking, international regulations based on the UN Model Regulations state (see International Maritime Dangerous Goods (IMDG) Code in 6.1.3.1):

“Each packaging intended for use according to this Code shall bear markings which are durable, legible and placed in such a location and of such a size relative to the packaging as to be readily visible.”

Similarly related to the UN marking, the Code of Federal Regulations, Title 49 §178.3(a)(3) states:

“The markings must be stamped, embossed, burned, printed or otherwise marked on the packaging to provide adequate accessibility, permanency, contrast, and legibility so as to be readily apparent and understood.”

And §178.503(a) states:

“The markings must be durable, legible and placed in a location and of such a size relative to the packaging as to be readily visible, as specified in § 178.3(a).”

Steel drum manufacturers have used several methods to display the UN mark on drums. The UN mark is usually located on the side of the drum in order to be accessible. UN markings are commonly applied to drums by printing or by way of a label to satisfy both the international and HMR marking requirements.

Illustrated below is a typical UN/DOT mark for a steel tight head drum. For further information, see Alert 14-09.

1A1 / Y1.9 / 100 / XX / USA / M#*

Issued 09/19

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*M (manufacturer) number or symbol. A list of M numbers can be found at http://hazmat.dot.gov/