U.S. Department of Transportation

Research and Special Programs Administration



DOT CHART 9

Hazardous Materials Marking, Labeling & Placarding Guide

This Marking, Labeling and Placarding Guide will assist shippers, carriers, fire departments, police, emergency response personnel, and others in complying with, and enforcing the regulations governing the safe transport of hazardous materials by highway, rail, water and air.

The information and illustrations presented in this Guide are intended to serve as an introduction to regulations governing hazardous materials transportation. The Guide should be read in conjunction with the Hazardous Materials Regulations (HMR; 49 CFR 100-199). Published annually, and amended periodically, the HMR are the key to compliance and contain the information needed to comply with the requirements for the safe transport of hazardous materials.

Hazardous materials markings, labels, placards, and shipping papers serve to communicate the hazards posed by materials in transportation. Hazard communication is the key to effective emergency response, and is also used to alert transportation workers and the general public of the presence of hazardous materials, insure that noncompatible materials are not loaded together in the same transport vehicle, and provide the necessary information for reporting hazardous materials incidents. The purpose of this Guide is to explain and identify the markings, labels and placards which appear on packages, freight containers and transport vehicles containing hazardous materials.

Marking regulations (Section 172.300) require information, specific to the hazardous material, to be "marked" on the outside of the package. Examples of the information required to be marked on the package are the proper shipping name, identification number and consignor's or consignee's name. For how markings required by the HMR are to be applied to a package, see Section 172.304. For exceptions to the marking requirements and additional marking requirements, see Section 172.300. This chart does not attempt to cover all the marking requirements. In particular this chart does not contain any information related to specification packaging markings addressed in the Parts 178 and 179 of 49 CFR. For further details on required markings, consult the appropriate sections in the HMR.

The Labeling of a package of hazardous material is specific to the hazard class of the material. The Hazardous Material Tables, Section 172.101 and 172.102, identify the proper label(s) for the hazardous material listed. In some cases, a hazardous material will meet the definition of two or more hazard classes. In these instances, the additional labeling requirements of Section 172.402 must be met. Labels, when required, must be placed next to the marked proper shipping name (Section 172.406). The requirements for labels can be found in Section 172.400–172.450.

Placards represent the hazard class(es) of the material(s) contained within the freight container, motor vehicle or rail car. The requirements for placarding are contained in Section 172.500–172.558. NOTE: This document is for general guidance only and is not a substitute for the requirements of 49 CFR 100–199.

Response begins with identification.

A transport vehicle carrying 1 package of Radioactive Material labeled Yellow III, 500 pounds of Flammable Liquid and 600 pounds of Corrosive Materials would be placarded with both RADIOACTIVE and DANGEROUS placards.

