

Appendix J - Transport of Cultures and Infectious Substances

(Division 6.2 Regulated Materials)

Revised January 2002

The following guidelines are based upon currently available information from the Department of Transportation (DOT) Code of Federal Regulations (49 CFR Parts 171 et. al) and the International Air Transport Association (IATA) 650 guidelines. For current regulations or additional information on shipping infectious substances, contact EH&S's Hazardous Materials and Waste Office at (206) 685-2848.

1. Definitions

- 1.1 All materials meeting one of the following definitions must be classed as an Infectious Substances (Division 6.2) and assigned to UN 2814 (infectious substance affecting humans) or UN 2900 (infectious substance affecting animals only).
 - a. Any culture or stock, defined as a material prepared and maintained for growth and storage of and containing a Risk Group 2,3 or 4 organism. See the World Health Organization (WHO) Laboratory Biosafety Manual for organism definitions.
 - b. Any diagnostic specimens known or suspected to contain Risk Group 4 organisms.
 - c. Specimens which are known or suspected to contain Risk Group 2 or 3 organisms AND ARE BEING SHIPPED BY AIR TRANSPORT. (DOT classifies these samples as diagnostic specimens, however IATA, which regulates the air transport industry, requires treating these specimens as Infectious Substances).

2. Packaging Requirements for Transport

- 2.1 Cultures or other materials as defined above must be triple packaged in UN rated performance tested packaging that meets the standards outlined in 49 CFR 178.503. In addition, they must be marked and labeled in accordance with applicable requirements and accompanied by appropriate shipping and emergency response documentation.
- 2.2 Persons responsible for shipping and transporting these materials must have documented current training on how to package, document and label in accordance with regulations. A simple summary of the packaging requirements is provided below, but complete training on packaging and labeling is beyond the scope of this document.

- a. The primary receptacle must contain no more than 50 mL, be leakproof and tightly closed. Screw caps must be secured with tape or other positive means.
- b. The primary receptacle(s) must be placed inside leakproof secondary packaging along with sufficient absorbent material to contain the entire contents of the primary container(s). If the primary containers are fragile, they must be individually wrapped or separated from each other so as to prevent contact.
- c. Either the primary receptacle or secondary packaging must be pressure-resistant and able to withstand temperatures between -40°C to +55°C (-40°F to +131°F) without leakage.
- d. The secondary package(s) must be placed in a sturdy outer transport container and secured within the outer packaging such that it will not shift around during transport.
- e. An itemized list of contents must be enclosed between the secondary packaging and the outer packaging.
- f. The outer package must be properly labeled, and an official shippers declaration must be attached.
- g. If dry ice is used, the outer packaging must allow for the release of carbon dioxide gas, and sufficient interior support must be provided to secure the secondary packaging in the original position after the ice has dissipated. Packages must be labeled in accordance with regulations for hazardous materials (49 CFR section 173.217).
- h. If regular ice is used, the package must be leakproof.