I. Introduction

Shipping hazardous materials is regulated by several governmental and non-governmental, consensus development organizations. Penalties for non-compliance with the rules are significant and could result in the following fines:

- Up to $250,000 and up to a year jail sentence for individuals.
- Up to $500,000 per incident for organizations.

Hazardous materials shipping regulations administered by the International Air Transport Association (IATA) and the US Department of Transportation (DOT) are the most comprehensive and widely applicable. Some shipping companies have developed specific rules, which are more strict than DOT and/or IATA regulations. Examples of these companies include the US Postal Service (USPS), Federal Express (FedEx) and United Postal Service (UPS).

Hazardous material regulations are extremely complex; a minimum of 24 hours of professional training, repeated every three years, is required to be certified to ship hazardous materials. EHS personnel have received this training and are available to assist University offices in their shipping needs.

II. Definition of Hazardous Material

Hazardous material is generally defined as any substance that could adversely affect the safety of the public, handlers or carriers during transportation. There are nine classes of hazardous materials (see Appendix B for hazard labels). Hazardous material, as defined by the DOT, is any substance that meets the definition of any of the nine hazard classes listed below.

1. Explosives
2. Gases
3. Flammable Liquids
4. Flammable Solids
5. Oxidizing Substances and Organic Peroxides
6. Toxic and Infectious Substances
7. Radioactive Material
8. Corrosives
9. Miscellaneous Dangerous Goods

Hazardous material regulations may apply to commercial products, chemical mixtures, and newly synthesized compounds. Various types of batteries, fuel containers and cleaning products are examples of materials that are regulated for shipment.
III. Scope of Regulations

Shipments of hazardous materials must comply with regulations any time they are transported by air. Shipments by ground are regulated when they are considered to be “in commerce.” Material carried by any commercial transport company such as FedEx or by U.S. Mail is considered to be “in commerce.” However, hazardous material transported in a university vehicle for use in a university project is not considered to be “in commerce.” However, this material is required to meet DOT packaging requirements. EHS will provide guidance on how to package hazardous material transported by university vehicles. Refer to the guidance documents below for procedures for specific materials. For shipment of materials not covered by these documents, fill out an Intent to Ship Hazardous Materials form (Appendix A).

Material-specific procedures are found in the following documents:
- Shipment of Laboratory Synthesized Compounds
- UNH Shipment of Biological Materials Manual
- UNH Guide to Shipping with Dry Ice
- UNH Guidelines for Shipment of Ethanol Solutions by Air
- UNH Guidelines for Shipment of Formaldehyde Solutions by Air

If you are shipping a hazardous material that is a commercially available product, it is more cost-effective in many cases to purchase the material at the location to which you wish to ship it. For example, if you are planning field-work which requires the use of hazardous chemicals, you may find it easiest to have a vendor ship the chemicals directly to (or near) the location where you will be working. If this is not an option or if you will be shipping very small quantities of hazardous materials, fill out the Intent to Ship Hazardous Materials form.

Certain hazardous materials are exempt from shipping regulations when shipped in small quantities. These quantity limits vary by material. EHS will determine the regulatory status of your material, including any possible exceptions, based on information submitted in the Intent form.

IV. Planning Your Shipment

When shipping a material that does not have material-specific procedures (see above), you must submit an Intent form for your material at least two weeks prior to your expected shipping date. EHS will determine what regulations, if any, apply to your shipment and notify you of what shipping materials you will need to ship your material. Your department will be responsible for providing all packaging materials required for your shipment.
Appendix A – Intent to Ship Hazardous Materials

Submit this form to EHS if you plan to ship something that may be classified as a hazardous material. EHS will determine if your shipment is regulated and will assist you in properly preparing your material for shipment.

1. Material Name:

2. Form of Material (i.e. liquid, solid, etc):

3. Quantity of Material:

4. CAS number (if any):

5. Manufacturer (if any):

6. Product Number (if any):

7. Shipping Destination:

8. Special Shipping Requirements (i.e. cold packs, dry ice):

9. What is your preferred shipping method (i.e. US Mail, FedEx, UPS)?

10. Do you plan to transport this material in a university vehicle?

<table>
<thead>
<tr>
<th>Print name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature:</td>
<td>Phone #:</td>
</tr>
<tr>
<td>Campus Address:</td>
<td>Return this form to <a href="mailto:andy.glode@unh.edu">andy.glode@unh.edu</a></td>
</tr>
</tbody>
</table>
Appendix B – Hazard Classes and Associated Labels