



# DUQUESNE UNIVERSITY

## Dangerous Goods Shipping Program

August 2009

### **Introduction**

Shipping dangerous goods (including hazardous materials, biological materials and dry ice) is regulated by several governmental and non-governmental 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.

Shipping regulations administered by the International Air Transport Association (IATA) ([www.iata.org](http://www.iata.org)) and the US Department of Transportation (DOT) (<http://hazmat.dot.gov/index.html>) are the most comprehensive and widely applicable. Some shipping companies have developed specific rules, which are stricter than DOT and/or IATA regulations. Examples of these companies include the US Postal Service (USPS), Federal Express (FedEx) and the United Postal Service (UPS).

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

These regulations must be followed by a researcher wishing to:

1. Ship a research sample for testing.
2. Send materials to a collaborator in industry or at another university.
3. Return a material to the manufacturer.
4. Ship a sample packaged in dry ice.

### **Background**

Every day, thousands of shipments containing dangerous goods are safely transported over the ground, through the air, and on the water. These shipments include materials like fuels, biological agents and chemicals used in a variety of manufacturing areas, agricultural applications, and research. The transport of dangerous goods is very important for the continuance of strong national and international economies.

Since 1974 the Department of Transportation (DOT) has regulated the commercial transport of dangerous goods. In 1990 Congress passed the Hazardous Materials Transportation Act Uniform Safety Act, the purpose of which is to “improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against the risks of life and property which are inherent in the transportation of hazardous materials in commerce.” Simply stated, the purpose is to ensure that all who come into contact with a shipment of dangerous goods are properly informed of the hazards presented by the material and the measures necessary for safe transport.

As a result of unreported or improperly packaged dangerous goods, the National Transportation Safety Board has compiled investigative records of numerous instances of materials that have caused extensive damage and loss of life. These instances often result in civil fines and penalties.

### **What are dangerous goods?**

Dangerous goods are substances or materials that are capable of posing a risk to health, safety, or property. This can include hazardous substances, hazardous waste, marine pollutants and elevated temperature materials. Also included are laboratory chemicals, radioactive materials, compressed gases, biological agents, diagnostic specimens, refrigerants and instruments or equipment that might contain hazardous materials.

Materials that are shipped to labs for testing or analysis, to a colleague for collaborative research, to another research facility, returned to the manufacturer or sent to a field research site must all follow applicable shipping requirements. To comply, regulated materials are classified according to their hazards, properly packaged, labeled, documented and handled by trained employees.

### **How do I know if a material is covered by the regulations?**

It is the responsibility of you, the shipper to identify the material and provide information on physical characteristics (flash point, pH, weight/volume, etc.). This will assist EHS personnel to properly classify materials that are subject to the Hazardous Materials Regulations (HMR). To determine if a material is regulated, the following references in 49 CFR are checked to see if the material is listed:

172.101 – The Hazardous Materials Table (<http://www.myregs.com/dotrspa/>)

172.101 Appendix A – Hazardous Substances (RQ)

172.101 Appendix B – Marine Pollutants

173, Subparts C, D, & I – The nine DOT hazard classes.

### **Definition of Hazardous Materials**

The table on the following pages lists the 9 hazard classes, basic definitions, and a few examples of hazardous materials for each class.

#### **Class 1 - Explosives**

Reference 49 CFR 173.50

There are 6 sub-divisions for explosives based on the type and severity of explosion. Materials or devices in Class 1.1 present a mass explosion hazard, while Class 1.6 applies to very insensitive explosive articles that do not present mass or projectile explosion risks. Some examples of Class 1 items are air bag inflators, ammunition, gun powder, water-activated contrivances, liquid propellant, primers, jet fuel and fireworks. Some explosives are forbidden from being offered for commercial transportation.

#### **Class 2 – Gases**

Reference 49 CFR 173.115

There are three types of gases - flammable, poisonous and compressed. Examples of flammable gases are certain aerosols, starting fluids, butane, propane, acetylene and cigarette lighters. Examples of poisonous gases are carbon monoxide, chlorine, nitric oxide, hydrogen and anhydrous ammonia. Compressed gases may be neither flammable nor poisonous but are packaged in a manner so that the absolute pressure is 40.6 psi or greater. Compressed gases can include liquefied gas, cryogenic gas, asphyxiate gas and oxidizing gas, also including compressed air and airbag inflators.

### **Class 3 – Flammable Liquids**

Reference 49 CFR 173.120

The number of materials that qualify as flammable liquid is large. Flammable liquids are generally defined as "liquid having a flash point of not more than 60.5 C (141F). This class also included combustible liquids which are liquids that do not meet the requirements of any other hazard class, and has a flashpoint above 60.5 C (141F), but below 95 C (200F). Examples of flammable liquids can include gasoline, diesel fuel, kerosene, crude oil, methanol, paint, adhesives, certain medicines and rosin oil. Although there are no class subdivisions, flammable liquids fall into three packing groups which are determined by both flash point and initial boiling point.

### **Class 4 – Flammable Solids**

Reference 49 CFR 173.124

In general there are three types of materials that qualify as flammable solids. 1: certain types of desensitized explosives. 2: certain self-reactive materials (materials that are thermally unstable and can undergo strongly exothermic decomposition without air) and 3: readily combustible materials such as certain metal powders, or materials that can cause fire through friction (such as matches) or that have an accelerated burn rate. There are two types of spontaneous combustible material...pyrophoric and self-heating material. Material that is dangerous when wet is material that is liable to become spontaneously combustible if in contact with water.

### **Class 5 – Oxidizers**

Reference 49 CFR 173.128

Oxidizers are materials that may, generally by yielding oxygen, cause or enhance the combustion of other materials. The hazardous materials regulations generally defines organic peroxides to be any organic compound containing oxygen in the bivalent O-O structure and which may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals. There can be some overlap between qualifying as a Class 5.2 organic peroxide and a Class 1 explosive, and when this occurs the material must generally be classified as a Class 1 explosive. There are seven different organic material types, Types A - G, in descending order of hazard risk presented, with type A being banned from commercial transportation.

### **Class 6 – Toxic and Infectious Substances**

Reference 49 CFR 173.132 & 134

The hazardous material regulations define poisonous material as any material, other than a gas which is known to be so toxic to humans as to afford a hazard to health during transportation, or if the material is presumed to be toxic to humans because of animal testing with respect to oral toxicity, dermal toxicity, or inhalation toxicity.

Arsenic, arsenic compounds, copper-based pesticides, tear gas, anti-knock compounds, trichloroethylene, and 1,1,1-trichloroethane are examples of Class 6.1 poisonous materials. The biohazard materials from Class 6.2 include infectious substances, diagnostic specimens, biological products, and regulated medical wastes. There are a number of exceptions and exclusions associated with Class 6.2, and in some cases compliance with OSHA regulations can be substituted for compliance with the hazardous materials regulations.

### Class 7 – Radioactive Material

Contact the Department of Radiation Protection

The hazardous materials regulations define radioactive materials as any material having a specific activity greater than 70 Becquerel (Bq) per gram. The specific activity of a radionuclide is the activity of the radionuclide per unit mass of that nuclide. The specific activity of a material in which the radionuclide is essentially uniformly distributed is the activity per unit mass of the material. Articles or instruments, such as clocks, electronic tubes or apparatus that have radioactive material in gaseous or solid, non-dispersible solid form as a component part of the article or instrument are subject to regulation as Class 7 radioactive materials. There are however, fairly broad exceptions for articles or instruments containing radioactive material as a component part when certain packaging formats are used, and certain radiation measurements can be satisfied. For questions about shipping radioactive materials, please contact the Radiation Protection Department.

### Class 8 – Corrosives

Reference 49 CFR 173.136

Liquids or solids that cause full thickness destruction of human skin at the site of contact within a specified time period, and liquids that can have a severe corrosion rate on steel or aluminum qualify as Class 8 corrosive material under the hazardous materials regulations. Numerous industrial and consumer products qualify as Class 8 corrosive items, including certain wet and dry batteries and alkali battery fluid, certain dyes, formic acid, hydrochloric acid, nitric acid, mercury and devices containing mercury (such as thermometers and electron tubes).

### Class 9 – Miscellaneous

Reference 49 CFR 173.140

One of the most common materials in use at Duquesne University that falls into this category is the use of *dry ice*. The shipper is responsible for supplying the dry ice and the shipping container, however if needed EHS can assist with locating proper containers. This classification can also be used for materials that present a hazard but do not fall within the guidelines of any of the other classifications. Examples would be any material that has an anesthetic or noxious property that could interfere with the duties of a flight crew member during transportation by air, asbestos, chemical kits and equipment containing hazardous materials. Class 9 serves as a "catch-all" for a wide variety of items that do not fall within the specific definitions of the other classes. When in doubt, ask an EHS representative.

Manufacturers and suppliers are required to provide Material Safety Data Sheet (MSDS) for their products. On newly formatted MSDS's, Section 14 is dedicated to Transportation Information. Review the MSDS, container labels, and prior shipping documents carefully for reference to "UN" numbers.

## **DU Shipping Procedures**

**Training.** Any individual who prepares a dangerous goods package or documentation must be trained. There are substantial fines and penalties for offering a dangerous good for shipment if you've not been certified to do so. EHS's involvement will help to avoid training requirement issues. If needed, EHS can also provide training for specific applications.

**Collect information to identify your material.** This information must include physical data, toxicological data and other pertinent information such as flammability/flash point, reactivity, pH/corrosivity, etc. Also provide information about the container(s). Glass, plastic, metal, etc.? Size of the container? Are there any markings indicating that the container is "UN-approved"? These are all questions that will help EHS properly process your shipment.

**Contact EHS.** Due to the complicated nature of dangerous good shipments, you must submit the Dangerous Goods Shipment Request form (see Appendix A) for your material at least three business days prior to your expected shipping date. Fill out the form completely and submit. The form is available on our website at [www.ehs.duq.edu](http://www.ehs.duq.edu). 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. Please fill out form completely; failure to do so will result in delay of shipment.

**Process the shipment.** You must make arrangements with EHS for a time and a location that you will be available to meet with an EHS representative to finalize preparation of the package and to sign any necessary documentation. EHS will provide all required documentation, labels and markings, and in some cases UN-approved packing materials required to meet regulations. For shipments where dry ice is the only hazard, you should provide the container, however EHS can assist with these. You are responsible for obtaining dry ice. You may have your samples packed in dry ice, in the container...but it must not be sealed in order to allow for EHS inspection.

NOTE: If you are shipping a dangerous good 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 Dangerous Goods Shipment Request form (see Appendix A).

By following the procedures outlined here, you can:

- Ensure that your package arrives intact and on-time without regulatory delays.
- Avoid costly non-compliance penalties.
- Rest assured that all individuals who come into contact with your package will know what it is, and how to safely handle it.

## **Exceptions**

Certain dangerous goods are exempt from shipping regulations when shipped in small quantities. These excepted quantity limits vary by material. EHS will determine the regulatory status of your material, including any possible exceptions, based on information submitted in the Dangerous Goods Shipping Request form.

Small quantity exceptions (49 CFR 173.4 and IATA 2.7) may exist for authorized materials:

- 30 mL limit for liquids
- 30 g limit for solids

### **Other Shipping Information**

#### **If the material is not regulated**

- If EHS personnel inform you the material is not regulated, you may ship it yourself. You will receive an e-mail from EHS stating it is not regulated and that you may ship it. This authorization is valid to use for shipments of the material stated, to the same recipient, under the same conditions for up to one year. You do not need to submit a new form for the exact same shipment during that year. If any of the conditions change, however, a new approval is needed.
- Follow these guidelines if dry ice is NOT being used:
  - Person / Department requesting shipment must confirm through the EHS Department that the chemical(s) that they want to ship are non-regulated;
  - Maximum quantity per container that is allowed when shipping non-regulated chemicals is limited to 100 grams for solids and 100 milliliters for liquids. Special requests for the shipment of larger containers of non-regulated chemicals must be pre-approved through the EHS Department.
  - Each container must be constructed of plastic having a thickness of not less than 0.2 millimeters, or of glass, earthenware or metal. The container to be used must be compatible with the chemical that it will store. The closure of each container must be leak-proof and held securely in place with wire, tape, parafilm or other positive means. Containers of liquids must contain sufficient headspace which means that the container is not completely filled at a temperature of 55°C or 130°F.
  - **Note:** Containers for the retention of liquids must be capable of withstanding, without leakage, an internal pressure which produces a pressure differential of not less than 95 kPa or 13.8 lb/in<sup>2</sup>.
  - Each container must be properly labeled with the common chemical. Labels must be legible and written in English. Foreign text may also be placed on the label as long as the English text is placed first on the label and is made prominent.
  - **For Solids:** Each container must be securely packed in an intermediate packaging with cushioning material. The intermediate packaging must be able to completely contain the contents in case of breakage or leakage, regardless of package orientation. EHS Department recommends heavy-duty, high quality ziplock bags for the intermediate packaging. Before sealing the ziplock bag carefully evacuate all excess air. Seal the ziplock bag with packaging tape to prevent it from opening. The cushioning material must be compatible with the chemicals.
  - **For Liquids:** Each container must be securely packed in an intermediate packaging with absorbent material. The absorbent material must be capable of absorbing all of the liquid contents regardless of package orientation. The absorbent material must be compatible with the chemicals. The EHS Department recommends heavy-duty, freezer ziplock bags for the intermediate packaging. Before sealing the ziplock bag carefully evacuate all excess air. Seal the ziplock bag with packaging tape to prevent it from opening.
  - Place the intermediate package into a sturdy, non-damaged shipping container (i.e. corrugated cardboard box). The box must be stamped with the minimum Box Certification Statement: 200 pound test.

- **Important:** New boxes are preferred. However if a box is going to be reused, do not use damaged boxes or boxes that possess any labels or markings that may signify that the contents of the package are hazardous.
  - Ensure that there is sufficient cushioning material placed around the intermediate container to prevent it from movement during shipment.
  - Place the following inside of the box near the top opening:
    - MSDS for each chemical/mixture;
    - A notice with the following statement: "The contents of this package are non-regulated / non-restricted per current Department of Transportation and International Air Transport Association regulations."
  - Securely seal the box with packaging tape.
  - Place "to" and "from" address labels on the exterior of the box.
  - Place orientation labels (up arrows) on 2 opposite sides of the outer box on all shipments containing liquids. Labels must meet specific shipping regulations. Contact the EHS Department if you need the orientation labels.
  - **Please Note:** Multiple chemicals can be shipped together as long as the following requirements are met:
    - All of the chemicals were determined by EHS to be non-regulated;
    - All of the chemicals are compatible and will not react with each other;
    - Each chemical/mixture is packaged according to the requirements listed above;
    - A MSDS is provided for each chemical/mixture; and
    - There is sufficient cushioning material placed between each intermediate package to prevent breakage during shipment.
- If the non-hazardous material will be shipped on dry ice, follow these guidelines and submit the Dangerous Goods Shipment Request (see Appendix A) form to EHS for shipping guidance.

## **Biological Materials**

### **If the material is a biological material**

- Any biological shipment request must go through EHS, by submitting the Dangerous Goods Shipment Request form (see Appendix A).
- Examples would include:
  - Human or animal specimens (including those that may harbor an infectious agent).
  - Recombinant DNA materials that can infect cells, but may not cause disease.
  - Cultures or stocks of agents infectious to humans or animals.
  - Recombinant DNA materials meeting the definition of an infectious substance.
  - Human or animal samples harboring an infectious agent assigned to Risk Group 4 or if the source has or may have serious disease which can be readily transmitted, and effective treatment is not available.

Biological materials fall into the following categories:

- Infectious substances
  - Category A infectious substances
  - Category B infectious substances
- Diagnostic specimens
- Biological products
- Genetically modified organisms and micro-organisms
- Unregulated biological materials

Infectious substance shipping regulations do not apply if the biological material to be shipped cannot cause disease. Substances that have a low probability of containing infectious substances such as water samples or food are not subject to these requirements.

### **Infectious Substances**

Infectious substances are those substances known to contain, or reasonably expected to contain pathogens. Pathogens are defined as microorganisms or recombinant microorganisms that are known or reasonably expected to cause infectious disease in humans or animals. However, they are not subject to the provisions of shipping if they are unlikely to cause human or animal disease. Infectious substances are subject to the regulations only if they are capable of spreading disease when exposure to them occurs.

Category A Infectious Substances are capable of causing permanent disability, life threatening or fatal disease to humans or animals when exposure to them occurs. Category A infectious substances have two shipping names: “Infectious substances, affecting humans” (UN 2814) or “Infectious substances, affecting animals” (UN 2900). Examples of Category A substances can be found on page 10 & 11.

Category B Infectious Substances are infectious but do not meet the criteria for Category A. Category B infectious substances have the proper shipping name “Biological Substance, Category B” and the identification number UN 3373.

Diagnostic Specimens are any human or animal material including, but not limited to, excreta, secretions, blood and its components, tissue and tissue fluids, being transported for diagnostic or investigational purposes, but excluding live infected animals. Diagnostic specimens must be assigned to UN3373 unless the source patient or animal has or may have a serious human or animal disease which can be readily transmitted from one individual to another, directly or

indirectly and for which effective treatment and preventable measures are not usually available in which case they must be assigned to UN2814 or UN 2900.

Biological Products are products derived from living organisms, that are manufactured and distributed in accordance with the requirements of national governmental authorities which may have special licensing requirements, and are used either for prevention, treatment or diagnosis of disease in human or animals, or for development, experimental or investigational purposes related thereto. They include, but are not limited to, finished or unfinished products such as vaccines and diagnostic products.

Biological products transported for final packaging, distribution, or uses by medical professionals are not subject to shipping regulations. Biological products that do not meet these requirements must be assigned to UN 2814, UN 2900, or UN 3373 as appropriate.

Genetically Modified Organisms and Micro-organisms are microorganisms and organisms in which genetic material has been purposely altered through genetic engineering in a way that does not occur naturally. They are divided into the following categories:

1. Genetically modified microorganisms, which meet the definition of an infectious agent. they must be classified in division 6.2 and assigned un 2814 or UN 2900.
2. Animals, which contain or are contaminated with genetically, modified microorganisms or organisms that meet the definition of an infectious substance. They must not be transported by air unless exempted by the States concerned.
3. Genetically modified organisms, which are known or suspected to be dangerous to humans, animals or the environment. They must not be transported by air unless exempted by the States concerned.
4. Except when authorized for unconditional use by the states of origin, transit and destination, genetically modified microorganisms which do not meet the definition of infectious substances but which are capable of altering animals, plants or microbiological substances in a way which is not normally the result of natural reproduction must be classified in Class 9 and assigned to UN 3245.

Genetically modified organism and organisms which do not meet the definition of an infectious substance and which are not otherwise included under (a) to (d) above are not subject to these regulations.

## Examples of Category A Infectious Substances

### UN 2814 Infectious Substance Affecting Humans

- *Bacillus anthracis* cultures
- *Brucella abortus* cultures
- *Brucella melitensis* cultures
- *Burkholderia mallei* – *Pseudomonas mallei* – Glanders cultures
- *Burkholderia pseudomelli* – *Pseudomonas pseudomallei* cultures
- *Chlamydia psittaci* – avian strain cultures
- *Clostridium botulinum* cultures
- *Coccidioides immitis* cultures
- *Coxiella burnetii* cultures
- Crimean-Congo hemorrhagic fever virus
- Dengue virus cultures
- Eastern equine encephalitis virus cultures
- *Escherichia coli*, verotoxigenic cultures
- Ebola virus
- Flexal virus
- *Francisella tularensis* cultures
- Guanarito virus
- Hantann virus
- Hantaviruses causing hantavirus pulmonary syndrome
- Hendra virus
- Hepatitis B cultures
- Herpes B virus cultures
- Human immunodeficiency virus cultures
- Highly pathogenic avian influenza virus cultures
- Japanese Encephalitis virus cultures
- Junin virus
- Kyasanur Forest disease virus
- Lassa virus
- Machupo virus
- Marburg virus
- Monkeypox virus
- *Mycobacterium tuberculosis* cultures
- Nipah virus
- Omsk hemorrhagic fever virus
- Poliovirus cultures
- Rabies virus
- *Rickettsia prowazekii* cultures
- *Rickettsia rickettsia* cultures
- Rift Valley fever virus
- Russian spring-summer encephalitis virus
- Sabia virus
- *Shigella dysenteriae* type 1 cultures
- Tick-borne encephalitis virus cultures
- Variola virus
- Venezuelan equine encephalitis virus
- West Nile virus cultures
- Yellow Fever virus cultures
- *Yersinia pestis* cultures

## UN 2900 Infectious Substance Affecting Animals

- African horse sickness virus
- African swine fever virus
- Avian paramyxovirus Type 1 – Newcastle disease virus
- Bluetongue virus
- Classical swine fever virus
- Foot and mouth disease virus
- Lumpy skin disease virus
- *Mycoplasma mycoides* – Contagious bovine pleuropneumonia
- Peste des petits ruminants virus
- Rinderpest virus
- Sheep pox virus
- Goatpox virus
- Swine vesicular disease virus
- Vesicular stomatitis virus

## Important Links

### Regulations:

Department of Transportation (DOT)

<http://www.phmsa.dot.gov/hazmat>

International Air Transport Association (IATA)

<http://www.iata.org>

FedEx Hazardous Materials Shipping (Ground)

<http://www.fedex.com/us/services/options/index.html?tsid=s3>

FedEx Dangerous Goods Shipping (Air)

<http://www.fedex.com/us/services/options/index.html?tsid=s2>

DHL Dangerous Goods Services

[http://www.dhl.com/publish/g0/en/information/shipping/danger\\_goods.high.html](http://www.dhl.com/publish/g0/en/information/shipping/danger_goods.high.html)

DHL Dangerous Goods Shipper's Declaration

<http://www.dhl-usa.com/CustServ/dangerousgoods.asp>

### Training:

University of Wisconsin Milwaukee Hazardous Materials Shipping and Transportation Awareness Training

[http://www.uwm.edu/Dept/EHSRM/TRAINING/HazMat\\_Training.html](http://www.uwm.edu/Dept/EHSRM/TRAINING/HazMat_Training.html)

### Shipping Material Suppliers (boxes, labels, etc.):

<p><b>Air Sea Atlanta</b> 1234 Logan Circle Atlanta, GA 30318 (880) 351-8600 <a href="http://www.airseaatlanta.com">http://www.airseaatlanta.com</a></p>	<p><b>All-Pak, Inc. Corporate</b> One West 1195 Washington Pike Bridgeville, PA 15017 (800) 245-2283 <a href="http://www.all-pak.com">http://www.all-pak.com</a></p>	<p><b>CARGOpak Corporation</b> 3215-A Wellington Court Raleigh, NC 27615 (800) 266-0652 <a href="http://www.cargopak.com">http://www.cargopak.com</a></p>
<p><b>DG Supplies, Inc.</b> 5 Boxal Drive Cranbury, NJ 08512 (800) 347-7879 <a href="http://www.dgsupplies.com">http://www.dgsupplies.com</a></p>	<p><b>HAZMATPAC, Inc.</b> 5301 Polk St., Bldg. 18 Houston, TX 77023 (800) 923-9123 <a href="http://www.hazmatpac.com">http://www.hazmatpac.com</a></p>	<p><b>Inmark, Inc.</b> 220 Fisk Drive S.W. Atlanta, GA 30336-0309 (800) 646-6275 <a href="http://www.inmarkinc.com">http://www.inmarkinc.com</a></p>
<p><b>Label Master</b> 5724 North Pulaski Chicago, IL 660646 Ph: 1-800-621-5808 Fax: 1-800-723-4357 <a href="http://www.labelmaster.com">http://www.labelmaster.com</a></p>	<p><b>Polyfoam Packers Corporation</b> 2320 S. Foster Avenue Wheeling, IL 60090 (888) 765-9362 <a href="http://www.polyfoam.com">http://www.polyfoam.com</a></p>	<p><b>SAF-T-PAK, Inc.</b> 10807-182 Street, Edmonton Alberta, Canada, T5S 1J5 (800) 814-7484 <a href="http://www.saftpak.com">http://www.saftpak.com</a></p>

<p><b>SCA ThermoSafe</b> 2320 Foster Ave Wheeling, IL 60090-6572 Ph: 847-398-0110 / 1-800-323-7442 Fax: 847-398-0653 <a href="http://www.thermosafe.com">http://www.thermosafe.com</a></p>	<p><b>Source Packaging of New England, Inc.</b> 405 Kilvert Street Warwick, RI 02886 (800) 200-0366 <a href="http://www.sourcepak.com">http://www.sourcepak.com</a></p>	
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## **Appendix A – Dangerous Goods Shipment Request**

Submit this form to EHS if you plan to ship something that may be classified as either a hazardous material or biological material at least three business days prior to your expected shipping date. EHS will determine if your shipment is regulated and will assist you in properly preparing your material for shipment.

**Fill out form completely; failure to do so will result in delay of shipment.**

Material Name:	
Category of Material:	<input type="checkbox"/> Hazardous <input type="checkbox"/> Biological <input type="checkbox"/> Category A <input type="checkbox"/> Category B <input type="checkbox"/> Diagnostic Specimen <input type="checkbox"/> Biological Product <input type="checkbox"/> Genetically Modified Organism <input type="checkbox"/> Unknown
Physical State of Material (liquid, solid, etc.):	
Number of Containers:	
Quantity of each Container:	
Total Quantity of Package:	
Special Shipping Requirements (dry ice, cold packs, etc)	
Shipping Destination:	

Print Name:		Date:	
Signature:		Phone:	
Email:		Lab #:	
<b>Return this form to EHS: B-8 Mellon Hall, Fax: x5275, or email <a href="mailto:sweitzerp@duq.edu">sweitzerp@duq.edu</a></b>			

<b>This shipment has been cleared by EHS. Signature: _____ Date: _____</b>
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