

Domestic and international transport/shipment of radioactive materials (RAM) follow strict safety rules to protect the public from radiation exposure. DOT regulations/IATA standards require shipping papers, specific markings, hazard labels, vehicle placards, and emergency response information to accompany RAM packages.

USC personnel that have initial and continued refresher training in DOT regulations/IATA standards may:

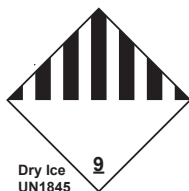
- Transport RAM between any USC campus (e.g., UPC/HSC) by motor vehicle or boat (e.g., Catalina) with the approval of EH&S.
- Prepare/package RAM for domestic/international shipment to external licenses. NOTE: RAM packages are processed by EH&S for shipment.

To initiate the transport/shipment process:

1. Review instructions on the [Transfer/Shipment of Radioactive Materials Form](#).
2. Complete the first two sections on Page 2 of the form.
3. Email completed form to radsafety@usc.edu.

WHAT IS NEEDED FOR PROPER TRANSPORT/SHIPMENT?

- *Shipping papers.* Important information must include: contents, name of shipper, and emergency response telephone number.
- *Marking.* Certain package types (e.g., Type A) must be marked accordingly. Packages containing liquid hazardous materials must have orientation markings on two opposite vertical sides of the package.
- *Labels.* A label that identifies the hazard of the material is applied to the package (see illustrations next column). A material with multiple hazards will have multiple labels. For example, if RAM is shipped in dry ice, then apply a Dangerous Goods label.
- *Emergency Response Information.* Include the following information in case of a transportation accident: contact information; clean-up procedures; and SDSs for each material.



WHAT I NEED TO KNOW...

- All RAM shipments are processed by EH&S and shipment costs are paid by the Principal Investigator or his/her department.
- Email radsafety@usc.edu for information on transport/shipment requirements as well as limited quantities.
- Do not use public transportation to move RAM between campuses or to external licenses.



WHAT ARE THE PACKAGING REQUIREMENTS?

Regulations require that hazardous materials packaging be of sufficient strength and quality to withstand “normal conditions of transport” (10 CFR Part 71.71) and high-probability accidents.

Most radioactive material packages received at or transported from USC are of two types: (1) UN-designated strong and tight packages for transporting limited quantities of radioactive materials and (2) Type A packages for transporting material in amounts exceeding limited quantities.

REFERENCES

- [49 CFR Part 172 – 180](#) (Code of Federal Regulations)
- [2017 IATA – Dangerous Goods Regulations 58th edition](#)
- [International Maritime Dangerous Goods Code \(IMDG code\)](#)
- [10 CFR part 20 Subpart J: Precautionary Procedures](#) (Standards for Protection Against Radiation)
- [10 CFR Part 71 PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL](#)

Manifests and other transportation requirements may be waived if limited quantities are transported within locations specified on the USC RAM license with EH&S approval.