

Hazardous Shipping Dewar Form

ANL 126C Shipping Order No. _____
 (Complete a new form for each dewar. Attach form to dewar.)

Date: _____

Description & Value:

Ship Via: FedEx. Other _____

Not ANL property. Please insure for: (Must check one)

Standard FedEx liability (\$100)

\$ _____

For international shipments only: **Customs declaration value:** \$ _____

(Note: shipment may require approval by the government of the destination country AND the shipment must depart Argonne via ANL Shipping in Building 46)

Shipment is comprised of small samples of biological macromolecules,

Contained in: (Check only those that apply.)

- LN2 gas phase
- refrigerated propane (_____ kg) (Refer to US DOT CA-199807017)
- refrigerated chlorodifluoromethane (_____ kg) (Ref. US DOT CA-199807017)
- refrigerated ethane (_____ kg) (Refer to US DOT CA-199807017)

Packaged in: (Must check only one)

- dry shipping dewar
- dewar filled with liquid nitrogen (_____ kg)
- Please inform me (APS User) of shipping tracking number.
 - E-mail _____
 - Voice mail _____

$$\text{_____ cryovials} * \frac{1.5 \text{ ml}}{\text{cryovial}} * \text{density} \left(\frac{\text{g}}{\text{ml}} \right) * \frac{1 \text{ kg}}{1000 \text{ g}} = \text{_____ kg}$$

CRYOGEN	DENSITY (G/ML)	MASS IN ONE 1.5-ml CRYOVIAL
Propane (liquid)	0.5853	0.8789 g
Chlorodifluoromethane (liquid)	1.4909	2.2364 g
Ethane (liquid)	0.572	0.858 g
Nitrogen (liquid)	0.8081	

HAZARDOUS MATERIAL MANIFEST / CARGO LIST

Date _____

Bldg. From	Bldg. To	Number of Pieces	Container Type	Basic Description Including Proper Shipping Name, Hazard Class & UN #	Signature	Badge Number	Gross Weight
				<i>Complete new form for each dewar. Attach form to dewar.</i>			
				<i>Check only those that apply.</i>			
				<input type="checkbox"/> Propane , frozen solid Hazard Class 2.1 UN 1978			
				<input type="checkbox"/> Chlorodifluoromethane , frozen solid Hazard Class 2.2 UN 1018			
				<input type="checkbox"/> Ethane , frozen solid Hazard Class 2.1 UN 1035			
				<input type="checkbox"/> Nitrogen , refrigerated liquid Hazard Class 2.2 UN 1977			

INSTRUCTIONS: Attach 2 copies of this form to the hazardous material to be transported. Include MSDS if available (required for off-site shipments)

Contact PFS-SS/MAT to schedule HazMat pickup at extension 2-4939 or pager 4-1683. Call Shipping if you require assistance at extension 2-2934.