



**ILLINOIS STATE POLICE
Division of Forensic Services
Forensic Sciences Command**

ESH Appendix 9. COLLECTION AND PRESERVATION OF FIRE DEBRIS EVIDENCE

1. Collect the sample from near the origin of the fire.
2. If possible, submit clean, dry unburned standards of the debris. This is known as a control/comparison sample.
3. The following containers are recommended for debris samples:
 - a. Metal friction top cans (paint cans) - clean, unused, lined or unlined, unoled. Common sizes ½ pint, pint, quart, gallon, or 5 gallon.
 - b. Clean glass jars, bottles, or vials with tight fitting screw-cap lids with a Teflon lining. If Teflon is not available, cover opening with clean aluminum foil before closing tightly with screw-cap lid.
4. When putting debris into containers take the following into consideration:
 - a. Suit the container to the size of the sample. Use the smallest size possible.
 - b. Fill containers only 1/2 to 2/3 full.
 - c. All containers must be closed with a lid or cap before being sealed with a good quality tape. All containers should bear identifying markings.
5. Paper bags and plastic bags are not recommended. These containers are permeable to hydrocarbon vapor and may result in the loss of evidence or contamination.
6. When glass bottles or jars are used, cushion them to prevent damage in transit.
7. Submit the evidence to the laboratory as soon as possible. Cans may rust and develop pin hole leaks. On hot days cans may vent due to pressure build up if left in trunk for a prolonged period of time. To avoid possible microbial degradation, cans containing soil/dirt should be clearly noted on the evidence container and accompanying paperwork at the time of submission.
8. When liquid accelerants are encountered at a scene, submit only a small amount for testing purposes. If charges of Unlawful Use of Weapon (UW) are approved, submit approximately 12 milliliters of liquid to the laboratory to weigh for reporting purposes. This amount will suffice for the one quarter (1/4) ounce required by statute. Retain original container for possible submission to other laboratory sections (DNA, Latent Prints, etc.). Destroy liquid accelerants that will not be needed and document the destruction.
9. The following containers are recommended for liquid samples:
 - a. Small metal cans (if no water is present).
 - b. Small glass bottles with screw-cap lids with a Teflon lining.
 - c. Polyethylene bottles - do not use polystyrene.