

# FORENSIC SCIENCE LABORATORY

## Guidelines for Evidence Submission Collection and Packaging of Physical Evidence

In general, physical evidence must be submitted according to the following guidelines. Evidence examination request forms DPS-997-C (Rev 12/12/11) and if necessary form DPS-997-C-1 (Rev 12/13/11) must be completed in full. **Please be advised that as of January 1, 2012, a new guideline protocol will be in effect; “Limiting Forensic Examination Submissions to the Division of Scientific Services”** If there are questions or concerns about the submission of physical evidence, please contact Bob O’Brien; [Robert.k.obrien@ct.gov](mailto:Robert.k.obrien@ct.gov) or (203) 694-6508.

### A. General Packaging Requirements:

1. All evidence including firearms should be submitted in a tamper-evident, **sealed** container or package. Do not re-use containers.  
Manufactured evidence storage bags must have a self-sealing capability with initials placed on the seal(s).  
All other plastic bags, used for packaging, must be heat sealed and initialed over the seal. **Plastic bags not specially manufactured for evidence storage, will not be accepted if sealed with evidence tape. This type of seal can be compromised.**
2. A tamper-evident seal must be initialed. Tamper-evident includes:
  - a. Heat seal on zip-lock or other plain plastic bags.
  - b. Paper bags and envelopes taped end to end, over the opening.
  - c. Staples alone are **not** sufficient.
  - d. Metal cans taped over the top on opposing sides.
  - e. Specially manufactured evidence storage bags (tyvek, plastic, etc.) must be sealed with tamper evident material.
  - f. Tamper-evident tape is evidence tape that will not remain intact upon its removal.
3. Computers should have evidence tape placed over the power supply slot and over disk, CD, DVD and backup tape slots. Use evidence tape from the back to the sides to insure computer case integrity. Initials shall be placed on the tape and seal(s).
4. All outer packaging or containers must be labeled with:
  - a. Submitting Agency case number
  - b. Description of item
  - c. Item number
  - d. Date and time seized
  - e. Name/initials/badge# of seizing officer

**B. Completing the Request for Examination Form (DPS-997C):**

Separate request forms are not required for each piece of evidence submitted. Evidence submitted to one laboratory should be placed on one form. Each case must have its own request form. Related cases will be cross-referenced.

1. The form may be typed or neatly and legibly handwritten.
2. Fill in or respond to all blank spaces
3. If evidence from this case was previously submitted to the Laboratory, mark the appropriate box and list the previously assigned Laboratory case number.
4. List the full names and DOB of all suspects and victims. If additional suspects are developed at a later time, submit the information on an additional Request for Examination of Physical Evidence form.
5. Give a brief summary of the case. Emphasize facts that are relevant to the evidence examination request. If there is a companion case, state that fact in the summary. List each item and a brief description of that item.
6. The listed item numbers must correspond with the evidence numbers written on the actual evidence containers.
7. List all examinations that you want completed for each piece of evidence. Laboratory personnel will evaluate the evidence and determine the appropriate type and sequence of testing. List any and all examinations that you desire, for each piece of evidence submitted. E.g.: Examine for trace evidence, Blood, body fluids, GSR, Latents and NIBIN.
8. Remarks: Include any pertinent information. E.g.: SPBI number of suspects, evidence previously examined, evidence exposed to known adverse chemical or environmental factors.
9. Keep the Laboratory informed of any changes in the case. E.g.: New suspects developed, Arrests made, Court disposition, Cased closed at the Troop/P.D. – including how the case was closed.
10. Include contact information for the officer requesting the examination. Be sure to include telephone number with extension.

### **C. Joyce Warrants**

1. Clearly identify the submitted evidence that will be examined pursuant to the issuance of a “Joyce” search and seizure warrant.
2. Submit a copy of a valid search and seizure warrant, with Joyce language on page 5, after a Judge signs it.
3. The warrant copy will be date stamped, and personnel from the Laboratory will sign the warrant. A copy of the stamped and signed warrant will be issued to the submitting agency.
4. Warrants must be submitted at the same time the physical evidence is submitted. If evidence was submitted without a Joyce warrant and subsequently you are advised of the need for a warrant, notify the Laboratory **IMMEDIATELY**.
5. The submitting officer is required to file the return on the warrant in compliance with statutory requirements and department guidelines.

## **THE COLLECTION AND PACKAGING OF DIFFERENT TYPES OF PHYSICAL EVIDENCE**

Due to the sensitivity of the current DNA technology, it is recommended that crime scene personnel wear masks when collecting evidence. Gloves should be changed regularly. Collection tools such as tweezers must be cleaned with bleach and alcohol between samples. Single use supplies are recommended when possible.

### **A. Fire Scene Evidence**

1. Collect debris or clothing suspected of containing accelerants. Use trained K-9 or Fire Marshal personnel to assist in locating evidence.
2. Place debris or clothing in a clean metal paint can, approximately 2/3 full. Do not use plastic bags. Glass jars can be used for liquid samples.
3. Collect control samples from areas adjacent to the suspected sample area if deemed necessary (e.g. carpeting, insulation, foam).

### **B. Sexual Assault Cases**

1. Arrange for the victim to proceed to a hospital or medical facility as soon as possible. Instruct the victim to avoid going to the bathroom or cleaning in any capacity.
2. A Sirchie 'CT100' Sexual Assault Evidence Collection Kit is utilized during the physician's examination.
3. Take custody of the sealed and labeled CT100 Kit and corresponding bag of victim's clothing.
4. Refrigerate (Do Not Freeze) the 'CT100 Kit' and arrange for submission to the Laboratory as soon as practicable. The clothing may be kept at room temperature.
5. In most cases, the initial submission of evidence should include only the 'CT100' Kit and victim's clothing. If circumstances warrant, additional items such as bedding or vehicle seat covers may be submitted. In all cases, potential evidence should be seized and maintained even if it is not included in the initial submission.
6. If a suspect is developed, the Laboratory may need known biological (buccal) and hair samples. A sexual assault offender kit is available. The kit contains materials for other samples and clothing if a suspect is developed soon after the incident.
7. A summary of the case should include information such as use of condom, ejaculation, etc.

C. **Blood Samples – Body Fluids – DNA Samples**

1. **Liquid Samples:** Collect on a sterile cotton swab and air dry before packaging.
2. **Known Blood Samples:** Obtain one purple top vial of blood.
3. **Dried Bloodstains:** Photograph and document the pattern with a scale prior to collecting. The preferred method is to send the entire article containing the stain to the Laboratory. A second option is to scrape the stain into a druggist fold or use a sterile cotton swab moistened with sterile distilled H<sub>2</sub>O. Air-dry the swab prior to packaging.
4. Bloodstained clothing and articles: air dry and wrap in paper or place in a paper bag.
5. Clothing or articles containing other body fluids: air dry and package in paper. (Wrap flat, protecting the stained area.)
6. Condoms with liquid – plastic specimen container. Refrigerate or freeze and deliver as soon as possible to the Lab.
7. Bedding – mark position of top, foot on bedding and circle any wet stains. Package in a paper bag, box or wrap in brown paper.

D. **Bombs and Explosives**

1. Have the device inspected and deactivated by Emergency Services personnel.
2. Whenever possible, photograph the device before submitting it to the Laboratory.  
**DO NOT SUBMIT UNEXPLODED DEVICES!**
3. Submit the explosive material for analysis.
4. Collect residue from the bomb scene and package in cans, glass jars or druggist folds.  
**Remember: The device itself is as important as the explosive material used.**

E. **Gun Shot Residue**

1. Use a GSR Collection Kit. If the Kit has components for both SEM samples and A A samples use, the SEM discs first.
2. Obtain the samples as soon as possible and before the individual is fingerprinted or allowed to wash his/her hands.
3. GSR collection kits can be used to collect GSR samples from vehicle interiors or other surfaces suspected of containing GSR.
4. GSR samples are not analyzed in routine suicide cases

F. **Distance Determination**

1. To preserve gunpowder patterns on clothing, package items flat and when possible on a hard surface, i.e. cardboard and wrapped in brown paper.
2. The actual weapon must be submitted in order to conduct distance testing.

## G. Paint Samples

1. Use a clean unused straight-edge razor blade to collect paint evidence. \*\*For the safety of the examiners, submitting the razor blade with the paint evidence in the envelope is highly discouraged.
2. **Do not** reuse the blade to avoid contamination of the samples.
3. All paint evidence should be placed in a paper druggist fold and then into an envelope.
4. Paint samples should not be placed directly into an envelope.
5. Do not package paint evidence in plastic bags.
6. Do not use a “tape lift” method or tape to collect paint evidence.

### **Collection of Paint**

7. **Smears of Paint:** Seize the entire object containing the smear. Otherwise, scrape off the smear and place in druggist fold. Ideally, chip off the smear area, thus collecting samples of the underlying paint. *Do not use tape lift method of collection.*
8. **Paint Chips:** Handle with care. It is possible to physically match paint chips to an area of damage. If possible secure large paint chips between heavy plates of plastic or cardboard to keep the chip from breaking, and then place in an envelope. Label the outer envelope as **fragile**. Call the lab for suggestions on how to package large paint chips. *Do not use a tape lift when submitting paint chips.*
9. **Known Paint Samples:** Collect as chips, including every layer of paint. Collect samples as near to the area of damage as possible. Scrape all the way down to the metal, wood or plastic substrate. When collecting samples from vehicles, the known sample should be from the same panel or car part as the damaged area. The chemistry of paint may be different based on its location on a vehicle.
10. Paint samples should be placed in druggist folds *and* placed in a secondary container i.e. envelope. *Do not package paint in plastic bags.*
11. The case summary should include a description of vehicles involved. Do not use “veh. #1 vs. veh #2”. Include all available information regarding all vehicles involved – ex. color, make and model, year and VIN number.
12. Call the Laboratory at (203) 639-6400- ask for the Trace Section and special issues can be addressed.

## H. Trace Evidence – hairs and fibers

### 1. Questioned Samples:

Collect trace evidence, questioned samples, (hairs, fibers or small particles) with a forceps and place into a paper druggist fold or use roller method. \*\*Vacuum sweepings are discouraged.

- a. Do not place trace materials directly into envelopes.
- b. *Do not use plastic bags to collect loose trace evidence.*
- c. Separate and identify collection areas: i.e. “front passenger floor” or “known carpet sample.”
- d. Roller sheets may be placed into plastic sleeves, the plastic sleeves can then be placed into large manila envelopes. Be sure to label both the plastic sleeves and the outer envelope with the location of the collection and item number.
- e. When collecting a single fiber, it may be placed on a glass microscope slide and secured by a cover slip or placed on a gel lifter which can be cut down to approx 3cm x 3cm. (Call the Laboratory to get a demonstration of this method)

### 2. Known Hair Collection.

- a. When collecting a known hair sample, pull a representative sample approximately 20 to 40 hairs from the target body region. Be sure to include the full name of the donor on the outer packaging.
- b. The hairs should be pulled from the body area.
- c. **Head hair samples** – pull 5-10 hairs from each side of the head, the front of the head, the top of the head and the back of the head. All of these hairs may be packaged in one paper druggist fold and then placed into an envelope. If there is significant color change, such as a dyed area, be sure to include it in the collection process to ensure a full representation of the hair.
- d. **Pubic hair samples** - collect 20-40 *pulled* hairs. All of these hairs may be packaged in one paper fold and then placed into an envelope.
- e. Known head hair samples and known pubic hair samples should be packaged and submitted separately.

### 3. Known Fiber Collection

- a. When collecting a known fiber sample, be sure to collect fibers that represent the entire item (ex. multi-colored carpet).
- b. The samples may be placed in a paper druggist fold and then placed into an envelope.
- c. Do not place a known fiber sample directly into an envelope.
- d. Label the sample as to the location of the collection. (ex. Carpeting from Master bedroom).

Call the Laboratory at (203) 639-6400- ask for the Trace Section, to get recommendations on the packaging of unusual types of trace evidence.

**I. Firearms**

**NO LOADED FIREARMS WILL BE ACCEPTED WITHOUT PRIOR APPROVAL.**

1. Unload all firearms prior to submission. As you unload the weapon record the exact state in which the weapon was found, such as the chamber position, safety position, etc.
2. With pistols, leave the magazine out of the weapon and ensure there are no live rounds in the chamber. The magazine and cartridges can be submitted in the same box as long as they are secured and there are no loose cartridges in the box.
3. Submit fired cartridge cases and projectiles in separate sealed envelopes or containers.
4. Any firearm legally in police custody may be submitted to the Laboratory for entry into NIBIN (National Integrated Ballistic Information Network). Exception: Any firearm held for safekeeping or pursuant to a protective order will not be accepted at the Laboratory.
5. If unable to check firearm or unsure of its safety, notify the personnel in Evidence Receiving upon your arrival.
6. **Do Not Re-Use Gun Boxes.**

**J. Latent Prints**

1. Generally, packaging should be conducted in such a manner as to minimize contact between the object with possible prints and the surface of the packaging material.
2. After dusting an object, collect the developed print with a lifter. Each lift shall have identifying marks (Case number and Lift number). ***Evidence without proper markings will be returned unexamined.*** If you are unable to lift the developed print you must cover the print with lifting tape or firmly secure the dusted object within a box.
3. Any item with a porous surface, such as paper, can be placed in an envelope and forwarded to the Laboratory for chemical processing.
4. Narcotics packaging can be processed for latent prints. The narcotics can be removed by either the Toxicology Laboratory or submitting agency. *An alternative method is to bring the packaging (narcotics still enclosed) to the Laboratory. You must call ahead and schedule an appointment because the examination will be conducted while you wait.*
5. Elimination Prints should be submitted whenever possible.



**K. Questioned Documents**

1. Questioned document examinations are conducted on printed, written or typed materials when the origin is unknown or the authenticity is in doubt.
2. If applicable, request a latent print examination in addition to questioned document examination
3. Originals for questioned and known items should be submitted. No faxed copies will be accepted.
4. Known standards must be collected. Known standards can be obtained through requested writings or from genuine handwriting sample. Known standards must be packaged separately from questioned samples.
5. If more than one set of standards are submitted, each set must be packaged separately.
6. Each Questioned document should be packaged in individual containers i.e. three separate questioned envelopes and letters to be submitted, each should be in a separate container.
7. Many typewriters contain records on the enclosed ribbon.
8. Ink, papers and typewriters can be examined.
9. Additionally, DNA tests can be conducted on envelope seals.
10. For information concerning what exemplars are needed, please call the Document Section of the Laboratory @ 203 639-6400.

**L. Imprint and Impression Evidence**

1. Footwear and tire track impressions are the commonly encountered examples.
2. Photograph at a 90° angle with a scale in the same plane as the impression, prior to collection.
3. If possible, seize the article on which the imprint is located.
4. Lifting methods can collect some types of imprints.
5. Casting with dental stone can collect impressions in dirt, sand, snow etc.
6. Suspect samples should be seized as soon as possible to minimize any additional wear, which can affect the individual characteristics.
7. Known shoes and tires should be collected. A Joyce warrant or consent form may be needed prior to analysis. When in doubt always contact your State Attorney's Office.
8. If you have any questions please call the Imprint and Impression Evidence Section of the Laboratory @ 203 639-6400.

## M. Multimedia Evidence

Multimedia evidence may be considered analog or digital media which contains images, video or audio files. This type of media may be contained on analog (VHS, 8mm, VHS-C) and digital (digital 8, miniDV, camera cards/cameras, USB drives or digital video recorders (DVRs) and CDs/DVDs with various video file formats *eg. .avi, .mov, .mpg, etc including proprietary files*). It is essential that video evidence be preserved until working copies can be generated.

1. When submitting audio, video and miniDV tapes make sure that the erasure prevention tab has been placed in the “SAVE” or “NON-RECORD” Mode. Any audio, video or miniDV cassette tapes which require enhancement should be cued to the appropriate location or the time/date of the incident must be provided to locate the area for enhancement.
2. Other considerations for Analog video (VHS, 8mm and VHS-C)
  - Note the time/date on the video monitor and note the real time (*i.e. using watch or cell phone*)
  - If a time-lapsed recording is being utilized, note the recording mode (*e.g. A2, A6, A12, A18, VRT, A24 or other*).
  - Note the make and model of the recorder and multiplexer if present.
  - Note any active cameras and camera view of interest. Note if any cameras are infrared sensitive (*this will change the colors of some materials*).
  - Stop the recorder, do not rewind the tape.
  - Remove tape. Once the tape is removed, remove the recording tab or set the recording slide to “save”.
  - Place the tape in an appropriate evidence bag/envelope. Avoid transporting or storing near magnetic devices.
  - If viewing the tape is needed for investigative purposes, make a copy of the original tape and view the copy. If needed, personnel should seek guidance or assistance when deemed appropriate.
  - Do not use the “pause/still” or “freeze frame” functions at any time on the original tape.

3. Any media submitted on CD or DVD, which is from a private security office, should have a player file with the appropriate CODEC provided on the media.

All CDs and DVDs must be finalized prior to submission.

4. When submitting DVRs, please attempt to get the user name and password information to access the hard-drive.

If seizing a digital video recorder, it should be treated as any other seized computer system. If internal operating system files are of interest do not perform a standard system shutdown; it is best to remove the plug from the wall outlet.

It should be noted that video evidence files located on a DVR have limited archival time and will be overwritten depending on the system's settings.

DVR considerations:

- Note the DVR's make, model and serial number and collect any manuals/software if present.
- Note the time/date on the video monitor and note the real time (*i.e. using watch or cell phone*)
- Obtain all administrative, user and software passwords for the DVR.
- If present, note any technical support phone numbers or information.
- Note any active cameras and camera view of interest. Note if any cameras are infrared sensitive (*this will change the colors of some materials*).
- Note if the system has a continuous recording mode or is time-lapsed or alarm/motion activated.
- If exporting the video file from a DVR onto external media (*e.g. CD, DVD, thumb or flash drives*) make sure a copy of the proprietary player/viewer software is also included.
- If a choice is present, it is preferable to export in both the native proprietary format and as an .avi or .mov (Quicktime) file. When exporting to .avi or .mov file formats, use the least compression possible.

- When exporting still images/single frames, utilize the .bmp option if available.
- If extensive analysis or retrieval assistance is needed, it is preferred that the DVR be submitted directly to the Laboratory for examination. (*Search/Joyce warrants or consent to search forms may be necessary for examination*).
- Package any DVRs in a cardboard box or paper bag for submission. Avoid transporting or storing near magnetic devices.