



# **Evidence Packaging Manual**

**605-773-3673**

**SOUTH DAKOTA  
FORENSIC LABORATORY**

*Wherever he steps, whatever he touches, whatever he leaves, even unconsciously, will serve as silent evidence against him. Not only his fingerprints, or his footprints, but also his hair, the fibers from his clothes, the glass he breaks, the tool marks he leaves, the paint he scratches, the blood or semen that he deposits or collects—all of these and more bear mute witness against him. This is evidence that does not forget. It is not confused by the excitement of the moment. It is not absent because human witnesses are. It is factual evidence. Physical evidence cannot be wrong; it cannot perjure itself; it cannot be wholly absent. Only its interpretation can err. Only human failure to find it, study and understand it, can diminish its value.”*

From Kirk, Paul L.  
*Crime Investigation*  
New York: Interscience

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## Preface

The purpose of this manual is to promote efficiency and simplicity in the evidence handling procedures for all evidence coming into the possession of the SDFL (South Dakota Forensic Laboratory). By following these guidelines we intend to establish standardized packaging methods for evidence submission to SDFL.

These guidelines will meet the specific needs of this laboratory, but will not cover every circumstance that one may encounter. If in doubt about a collection, packaging, or storage procedure, contact the Lab and speak to that specific area.

This manual attempts to instruct the officer in packaging techniques through the use of photographs and text in a step by step approach. Following the instructions are "Points of Interest" which contain important information pertaining to specific circumstances or packaging tips.

In addition this manual offers a fairly detailed list of services offered in each functional area. It also describes the types of services and analyses that SDFL does NOT provide, however lists possible outsource labs for your consideration. We are not allowed to recommend one lab over another.

Explanations are not always given for concepts that are considered basic law enforcement procedure. Certain phrases are common throughout the manual. Whenever they are given, the following can be referenced:

...seal with evidence tape... = use tamper proof tape marked as EVIDENCE and place along package openings to seal in contents, preventing loss or cross contamination and providing notice of unauthorized opening. The investigating officer should use a **permanent marker** to write his/her signature or initials & date sealed on the tape.

...attach BEAST packing slip... = refers to the paperwork generated when your case is entered into the BEAST (Barcoding Evidence Analysis Statistics and Tracking) computer system. This signed form **MUST** accompany all evidence submitted to the Lab.

...fasten plastic tie on the inside... = plastic ties used to anchor an item inside a box to prevent shifting should be fastened with the knob or ratchet end of the plastic tie on the box's interior. The box will not lie flat if the ratchet end is on the box's exterior.

The Evidence Custodian has the right to refuse property (Right of Refusal) not packaged in accordance with this manual. Such property will be returned to the investigating officer via FedEx or designated carrier to allow for satisfactory changes to be made, and the evidence resubmitted in a timely manner.

# South Dakota State Forensic Laboratory

1302 Easy Hwy 14, Suite 6 Pierre, SD 57501

has been assessed by the

## Forensic Quality Services Forensic Accreditation Program

and found to comply with the requirements of ISO/IEC 17025:2005 and  
Forensic Requirements for Accreditation (FRA 1)

The scope of the accreditation is identified in the FQS-I Register of Accredited La-  
boratories

**This Certificate Number is 08-FQS-I-04 Accreditation is effective 2008/10/19 and expires  
2012/01/17**



  
Terry Mills  
Manager of Accreditations



## **SDFL Mission Statement**

The South Dakota Forensic Laboratory is dedicated to providing forensic science services to the law enforcement and judicial systems of South Dakota in the specialties of computer examinations, serology/DNA-CODIS, fingerprint-AFIS, trace/arson, and firearms-NIBIN/toolmarks. The SDFL will continually strive to ensure the quality and reliability of its laboratory data through the use of established methods and procedures which are adequately documented. The SDFL quality system will strive to ensure that functions are performed as intended, in accordance with good laboratory practices.

The SDFL will maintain an open and honest relationship with all parties of law enforcement and the judicial system. Examiners participate in ongoing field investigations by conducting crime scene searches, performing photography, and providing other on-scene scientific and/or technical, scientifically sound, accurate, and as complete a report as possible.

Personnel within the SDFL will make every effort to foster support and trust among fellow employees, & emphasize a dedication to excellence and ethical integrity when working for the people of South Dakota.

## **SDFL Operations**

Employees of the State Forensic Lab operate under the administration of the SD Division of Criminal Investigation and Attorney General.

The State Forensic Lab shall conduct scientific examinations to assist law enforcement officers in criminal investigations.

The State Forensic Lab cooperates with private medical facilities, other State & Federal Agencies and law enforcement by providing procedures and facilitating the availability of materials used for managing, collecting, and examining sexual assault evidence and convicted offender DNA data basing.

State Forensic Lab personnel instruct Lab Capabilities to the General Law Enforcement training sessions, Highway Patrol recruit classes, physical evidence recovery techniques/procedures as requested by law enforcement on and off site, and attend to informational training requests made by law enforcement, attorneys and others. If you have any such training needs, please contact the SDFL Director at 605-773-3673.

## **Field Assistance/Crime Scene Assistance**

The complexity and demands of a major crime often overwhelm the resources of a law enforcement agency. The necessity to do a thorough and complete investigation is equally incumbent upon all agencies, regardless of resources and training. SDFL offers crime scene assistance as needed. Contact SDFL Lab Director Frans Maritz @605-773-7850 (work) or 605-295-0653 (cell) or Assistant DCI Director Brian Zeeb @605-773-4624 (work) or 605-690-6227 (cell) if you need crime scene assistance.

**SD Forensic Laboratory**  
**Lab Management System**  
**Barcoding, Evidence, Analysis, Statistics, and Tracking**  
**“BEAST”**

BEAST operates on the Regional Information Sharing System (RISS) through the Mid-States Organized Crime Information Center (MOCIC) system.

BEAST is your online connection to the SD Forensic Lab (SDFL), allowing you to prelog your evidence, check the status of your case(s) and receive your examination results online. Your access to the coDNA offender data base is also through this system.

To establish your RISS and BEAST accounts, please fill out the online application at:

<https://apps.sd.gov/dci/riss/newapp.aspx>

On the application please check all RISS applications applicable to your position. For the SDFL, check “BEAST” and “coDNA”. Record the password you have chosen and keep in a secure location.

If you have an established RISS account but did not check “BEAST” and “coDNA” you must reapply for a new account. Again, check all the RISS applications applicable to your position. Each officer must have their own RISS account (MOCIC regulations).

Once your account is established, via email you will receive your user name, as well as attachments with step by step instructions for submitting evidence. Print out the instructions to assist you when prelogging evidence.

Questions RE: filling out the application: Jamie 773-4803, Ross 773-2883

Questions RE: BEAST: Paulette 773-7843, Peggy 773-7845

Questions RE: coDNA data base: Charlene 773-3673, Stacey 773-7832

## **Procedure For Submitting Evidence To SDFL**

### **Paperwork**

All evidence submitted must be accompanied by a signed copy of the BEAST Prelog Packing Slip. In addition, for digital evidence submitted include a "Digital Evidence Examination Request" and either a Search Warrant or a Search/Wipe Consent form (both forms are available on the Attorney General website <http://atg.sd.gov>) If you are submitting a firearm for destruction, include a teletype copy of the negative record from NCIC, and a court order for destruction.

### **Evidence Packaging/Marking & Sealing**

Refer to the specific areas of evidence collection in this manual for guidance on properly packaging particular evidence. Contact the SDFL with any questions at 605-773-3673.

Every item of evidence submitted must be properly sealed. Acceptable seals include tamper proof evidence tape, reinforced packaging tape, or a heat seal. The individual sealing the evidence MUST place their initials and date sealed across the seal or tape onto the package itself. Evidence which does not meet the sealing requirement cannot be accepted for analysis by the SDFL, and will be returned to you for proper packaging and resubmission. Each item of evidence submitted should have your inventory number written on the package. This inventory number must coincide with your BEAST prelog.

Packaging of criminal cases should include information of where the item was found, by whom, date and time found, item description, and your inventory number. This inventory number must coincide with your BEAST prelog.

### **Case Priority**

All submitted cases are assigned a routine priority and added to the current backlog. To elevate a case to a higher priority assignment, please contact the SDFL Director at 605-773-3673.

### **Return of Evidence**

All evidence submitted to the SDFL will be returned to the submitting agency upon completion of analysis, unless otherwise indicated on the BEAST prelog. Evidence is shipped via FedEx Ground service or other designated carrier.

### **SDFL Capabilities**

Not all examinations listed on the following pages are provided by the SDFL, but can be completed in partnership with other laboratories (outsourced). These examinations are printed in blue. Depending on the outsourced source, there may be an expenditure for the examination; this expenditure is the responsibility of the requesting agency\*.

If the only examination required on submitted evidence from your agency is an outsource, we encourage you to contact the outsource laboratory directly and eliminate our participation. Prior to your outsource, please check with the SDFL staff to determine if this particular examination may not be offered in our laboratory.

\*Reviewed on a case by case basis.

The SDFL does NOT perform blood alcohol exams, toxicology exams, or narcotics exams. These items should be submitted to:

SD Health Laboratory

615 E 4th Street

Pierre, SD 57501

605-773-3368

The SDFL offers SD Law Enforcement crime scene including searches, photography, and providing other on-scene scientific and/or technical services as necessary. Please contact the SDFL Director at 605-773-3673 to request these services.

## BEAST Examination Categories

### Crime Scene

CSI	Crime Scene Investigation <i>Collecting, documenting, and managing physical evidence from scene of crime</i>
CSR	Crime Scene Reconstruction <i>Determination of most probable sequence of events</i>
VEH	Vehicle Inventory/Search <i>Inventory of items taken from vehicle search</i>
VEP	Vehicle Processing <i>Collecting, documenting, and managing physical evidence from a vehicle</i>

### Biology Section

BIO	Biology <i>Examination of evidence for the presence of biological materials such as blood, semen, and saliva; DNA analysis of evidence samples and known reference samples</i>
CODIS	Combined DNA Index System <i>DNA profile search of databases (State and National) to generate investigative lead through a DNA profile match; searchable indexes are: offender, forensic (casework), missing persons, unidentified human remains, and biological relatives of missing persons For SDFL use only.</i>

### Firearms Section

FA	Firearms Identification <i>Analysis of fired cartridge and/or shot shell components to determine the possible type of firearm involved. Includes comparison to recovered and submitted firearms</i>
BTE	Bullet Trajectory <i>Analysis to determine the pathway or trajectory bullets take during short and distant travel</i>
EPT	Ejection Pattern Test <i>Analysis to determine how a particular firearm arrays the fired cartridge cases ejected from it</i>
FUN	Functionality Test <i>Analysis to determine functionality and operability of firearm. Includes trigger pressure analysis to determine the amount of force required to actuate the firing mechanism</i>
GSR	<b>Gun Shot Residue</b> <i>Analysis of GSR (primer residues) kits taken from suspect's hands or other evidence items e.g. clothing, vehicle interiors to determine whether or not an individual has discharged a firearm or were in close proximity of a discharged firearm.</i>



<b>MUZ</b>	Muzzle to Target <i>Analysis to determine the distance between firearm and target (all types of firearms including shotgun and shot pattern evidence). Includes visible and non-visible GSR (smoke, soot, burned and partially burned gunpowder particles) analysis. This type of GSR analysis is different from the GSR (primer residues) analysis performed on GSR kits collected from a suspect's hands and/or other evidence surfaces (listed above).</i>
<b>NIB</b>	National Integrated Ballistics Identification Network <i>The input of characteristics of expended ammunition into a national computer data base for comparison purposes</i>
<b>POA</b>	Point of Aim <i>Analysis to determine the accuracy and precision of a firearm's sights to the point of aim</i>
<b>SNR</b>	Serial Number Restoration <i>Restoration of erased and/or obliterated serial numbers</i>
<b>TM</b>	Tool Mark <i>Comparison of tool marks left at a crime scene to known standards produced by the suspect tool</i>
<b>FC</b>	Firearms Collection <i>Per SDCL 23A-37-13, describes controlled firearms and weapons disposal</i>
<b>BAL</b>	Ballistics <i>Analysis not included in any of the other examination categories, e.g. chemical examinations to determine the presence of bullet material residues (lead, copper, etc), order of shots (e.g. glass), measuring muzzle velocity and energy, determining bullet entrance vs. exit, terminal ballistics (projectile behavior on a target and/or target behavior on a projectile)</i>
<b>Trace Section</b>	
<b>CHE</b>	Chemical <i>Analysis to determine the identification of unknown substance</i>
<b>FIB</b>	Fiber <i>Analysis to determine the identification of fiber type; comparison of known and unknown fibers samples</i>
<b>GLA</b>	Glass <i>Analysis to determine if two samples come from same source; fracture matching</i>
<b>HAI</b>	Hair <i>Analysis to determine hair species &amp; origin</i>
<b>SOI</b>	Soil <i>Analysis to determine composition of suspect soil</i>
<b>PRO</b>	Protective Coating <i>Analysis to determine the layers of a protective coating such as paint</i>

<b>MIC</b>	Microscopic <i>Analysis to determine presence and identity of unknown substance (e.g. fingernail scrapings)</i>
<b>IGL</b>	Ignitable Liquids <i>Analysis of liquid substance to determine if substance is flammable</i>
<b>FDA</b>	Fire Debris Analysis <i>Analysis to determine if debris contains an accelerant</i>
<b>FAB</b>	Fabric Impression <i>Analysis of impressions formed when a fabric contacts a hard surface</i>

#### Document Section

<b>QD</b>	<b>Questioned Document</b> <i>Analysis to answer questions about a disputed document; may involve comparison of the questioned document to a set of known standards; most common type involves potential authorship of handwriting.</i>
<b>IP</b>	<b>Ink, Papers, Alterations, and Obliterations</b> <i>Inks can be examined to determine if different inks were used to produce a particular document in question. Inks that have been obliterated or destroyed through fading, burning, water, overwriting, chemicals, or other means can often be recovered and made legible. Paper can be compared with known samples to determine if the document in question is similar to a known sample. Paper can sometimes be dated or traced to a particular source or manufacturer. Alterations and Obliterations exams are performed in order to detect whether a portion of a document has been altered, some portion rendered not readily visible, or some text added.</i>
<b>IND</b>	<b>Indented Writing</b> <i>Indented writing is an imprint which may be left on the underlying pages when the top sheet of paper is written upon. This impression of the writing is influenced by pen pressure and thickness of the paper. Indented writing is very useful as a form of connecting evidence, such as tying a robbery note to a writing pad recovered from a suspect.</i>
<b>PPM</b>	<b>Paper Physical Match</b> <i>Anything that is torn, cut, fractured, snapped, pulled, or ripped apart can be matched back to its congruent counterpart, e.g. matches reconstructed to their match books, shredded or tom documents, cut documents, etc. Paper that has been burned or water soaked can often be restored.</i>

## Fingerprint Section

- FP** Latent Fingerprint Examination  
*The fingerprint section performs two types of exams within this request: print processing and latent comparisons.*  
**Print processing** cases consist of crime scene evidence from which the print section attempts to develop latent prints. Latent prints of value are compared to any known suspects and/or searched through the Automated Fingerprint Identification System (AFIS). AFIS houses latent print and ten-print card information. Through AFIS, crimes can be linked to one another, to arrestees or individuals on file, or perhaps both.  
**Latent comparison** cases consist of an agency's submitted lifts taken from a crime scene. These lifts are compared to individuals under investigation as well as entered into the AFIS database.
- TP** **Tire Print Examination**  
*Analysis of either photographs or casts (preferably both) of tire tread marks to determine if patterns of two samples are the same; also to determine if specific tire made a specific print*
- SHO** **Shoe Print Examination**  
*Analysis of either photographs or casts (preferably both) of shoe pattern to determine if patterns of two samples are the same; also to determine if specific shoe made a specific print*

## Digital Evidence

- DEP** Digital Evidence Preview  
*Analysis of digital evidence to see if evidence is present; only specific type of evidence that submitter requests will be looked for (e.g. child porn, text messages). Prelog must be accompanied by Digital Evidence Request for Laboratory Examination (see Attorney General website [www.atg.sd.gov](http://www.atg.sd.gov));(follow DCI link to Forensic Lab link) No CD report of exam is issued. No search warrant or consent forms required.*
- DEA** Digital Evidence Analysis  
*Full analysis of digital evidence to include computers, cell phones, digital cameras, etc; only specific type of evidence that submitter requests will be looked for (e.g. child porn, text message). Prelog must be accompanied by Digital Evidence Request for Laboratory Examination (see Attorney General website [www.atg.sd.gov](http://www.atg.sd.gov)); (follow DCI link to Forensic Lab link) Search warrant or consent forms required.*
- DEFA** Digital Evidence Field Assist  
*Request a digital evidence examiner to assist in a search warrant and/or other field activity on site.*
- DEI** Digital Evidence Image  
*Request for copy of examiner's evidence files or suspect's hard drive*
- DERC** Digital Evidence Report Copy  
*The request for duplication of an FTK report for an additional distribution*

**DEW** Digital Evidence Wipe  
*Request for computer hard drive to be wiped completely clean; authorization form required (see Attorney General website <http://www.atg.sd.gov> (follow DCI link to Forensic Lab link)).*

**DEE** Digital Evidence Video/Audio Enhancement  
*Request to enhance media for clarity*

**Miscellaneous**

**CRI** Criminalistics  
*A specific analysis type not usually requested, but significant to a specific case. Contact the laboratory to discuss this option.*

**COM** Compliance w/SDCL  
*Analysis of an item(s) which requires a specific examination that will result in a compliance with any SDCL, such as the weight of gunpowder allowed in pyrotechnics (firecrackers). Also used in conjunction with firearm destruction requests. Court order must accompany all firearm destruction requests, as well as a copy of the negative NCIC check.*

**PHO** Photograph Media Request  
*Request to photograph specific pieces of evidence as required*

**NCA** Non Criminal Assist  
*The Non Criminal Assist analysis code is appropriate for use when assistance is required by a department/agency in which a criminal offense did not occur, i.e. recovery of data on an officer's hard drive after a computer malfunction.*

**BPI** Blood Stain Pattern Interpretation  
*Examination of the shapes, locations, and distribution of patterns of bloodstains, in order to provide an interpretation of the physical events which gave rise to their origin*

## **Outsource Testing Resources**

The following is a list of resources available to conduct analyses that the SDFL is unable to provide at this time, or to be available for private examinations. This is not an all-inclusive list. State law prohibits us from recommending one resource over another.

### **BLOODSTAIN PATTERN INTERPRETATION**

The South Dakota Forensic Lab does not offer BPI examinations at this time. BPI examinations may be obtained from the following:

**Todd Thorne**  
Thorne and Associates  
262-645-3346  
[tathorne@wi.rr.com](mailto:tathorne@wi.rr.com)

**Michael J Van Stratton, Lab Director**  
KBI Forensic Laboratory  
1620 SW Tyler  
Topeka, KS 66612  
785-296-8300

**Larry Barksdale**  
Lincoln PD  
402-441-6965  
[lpd211@cjis.lincoln.ne.gov](mailto:lpd211@cjis.lincoln.ne.gov)

**Carolyn Gannett**  
Gannett Forensics  
619-606-5756  
[gannettforensics@aol.com](mailto:gannettforensics@aol.com)

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff @ 605-773-3673.**

## FORENSIC DNA TESTING

The SD State Forensic Lab offers forensic biology/PCR STR DNA testing services at no charge to SD City, County, and State Law Enforcement involved with criminal investigations. The SD State Forensic Lab will actively manage case loads and number of samples to be tested by attempting to identify the most probative items through constructive dialog with the submitting agency. The SD State Forensic Lab also manages CODIS as per SDCL 23A-5A-1.

PCR STR DNA analysis of biological materials may also be obtained from the following:

**AFIP (Armed Forces Inst. Of Pathology)**

1413 Research Lab Blvd. Bldg #101

Rockville, MD 20850

301-319-0210

(Federal agencies only)

**Bode Technology**

10430 Furnace Road Ste 107

Lorton, VA 22079

866-263-3443

[www.bodetech.com](http://www.bodetech.com)

**Chromosomal Labs Inc**

1825 W Crest Lane

Phoenix, AZ 85027

623-434-0292

**Forensic Science Associates**

3053 Research Drive

Richmond, CA 94806

510-222-8883

**Genelex Corporation**

3000 1<sup>st</sup> Ave. #201

Seattle, WA 98121

206-382-9591 Ext 2852

**Identity Genetics**

801 32nd Ave

Brookings, SD 57006

800-861-1054

[www.identitygenetics.com](http://www.identitygenetics.com)

**Lab Corp DNA ID Testing Div**

1440 York Court

Burlington, NC 27215

800-522-6671

[www.labcorp.com](http://www.labcorp.com)

**Nat'l Medical Services Lab**

3701 Welsh Road

Willow Grove, PA 19090

[www.nmslab.com](http://www.nmslab.com)

**Orchid Cellmark Inc**  
13988 Diplomat Drive  
Farmer's Branch, TX 75234  
[www.orchidcellmark.com](http://www.orchidcellmark.com)

**Strand Analytical Lab**  
5770 Decatur Blvd Suite A  
Indianapolis, IN 46241  
317-455-2100  
[www.strandlabs.com](http://www.strandlabs.com)

**Orchid Cellmark Inc**  
1400 Donelson Pike Suite A-15  
Nashville, TN 37217  
[www.orchidcellmark.com](http://www.orchidcellmark.com)

**Analytical Genetic Testing Center**  
7808 Cherry Creek South Dr #201  
Denver, CO 80231  
303-750-2023

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff  
@ 605-773-3673.**

## Touch DNA

The South Dakota Forensic Lab offers touch DNA examinations on a case by case basis. Contact SDFL at 605-773-3673 to discuss your request. Touch DNA examinations may be obtained from the following:

**The Bode Technology Group Inc**

10430 Furnace Road Suite 107

Lorton, VA 22079

866-263-3443

[www.bodetech.com](http://www.bodetech.com)

**Orchid Cellmark**

13988 Diplomat Drive

Farmers Branch, TX 75234

[www.orchidcellmark.com](http://www.orchidcellmark.com)

800-872-5227

**Bexar County Crim Inves Lab**

7337 Louis Pasteur

San Antonio, TX 78229

210-335-4100

[www.bexar.org/crimelab/](http://www.bexar.org/crimelab/)

**National Medical**

3701 Welsh Road

Willow Grove, PA 19090

800-522-6671

[www.nmslab.com](http://www.nmslab.com)

**LabCorp**

1440 York Court

Burlington, NC 27215

[www.labcorp.com](http://www.labcorp.com)

800-742-3944

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff @ 605-773-3673.**



## **MITOCHONDRIAL DNA (mtDNA)**

The South Dakota Forensic Lab does not offer mtDNA examinations at this time. Mitochondrial DNA examinations may be obtained from the following:

**AFIP (Armed Forces Inst. Of Pathology)**

1413 Research Lab Blvd. Bldg #101

Rockville, MD 20850

301-319-0210

(Federal Agencies only)

**Bode Technology**

10430 Furnace Road Ste 107

Lorton, VA 22079

866-263-3443

[www.bodetech.com](http://www.bodetech.com)

**Lab Corp DNA ID Testing Div**

1440 York Court

Burlington, NC 27215

800-742-3944

[www.labcorp.com](http://www.labcorp.com)

**Mito Typing Technology**

2565 Park Center Blvd #200

State College, PA

814-861-0676

**Orchid Cellmark Inc**

13988 Diplomat Drive

Farmer's Branch, TX 75234

800-752-2774

[www.orchidcellmark.com](http://www.orchidcellmark.com)

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff @ 605-773-3673.**

## **QUESTIONED DOCUMENT**

**The South Dakota Forensic Lab does not offer questioned document examinations at this time.  
Questioned document examinations may be obtained from the following:**

**Janis Tweedy, D-ABFDE**

**Mendota Heights Business Center**

**750 S. Plaza Drive, Suite 210**

**Mendota Heights, MN 55120**

**651-994-9770**

**Karen Runyon**

**Minneapolis, MN**

**612-338-5414**

**Dennis Rohr**

**Mandan, ND**

**701-663-1320**

**Grant Sperry, US Postal Document Inspector**

**US Postal Laboratory**

**Memphis, TN**

**901-747-7757**

**[www.asqde.org/fdes](http://www.asqde.org/fdes)**

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff  
@ 605-773-3673.**

## **Archeology and Entomology**

**The South Dakota Forensic Lab does not offer archeology or entomology examinations at this time. These examinations may be obtained from the following individuals:**

### **Archeology:**

**Katherine Lammle**

**SD Archaeological Research Center**

**2425 E. Saint Charles Street**

**PO Box 1257**

**Rapid City, SD 57709**

**Direct line: 605-394-1804**

**Research Center: 605-394-1936**

**katie.lammie@state.sd.us**

### **Entomology:**

**Dr. Melissa Connor**

**402-465-2550**

**mconnor@nebrwesleyan.edu**

**Dr. Scott Connor**

**402-423-3052**

**dougscott@aol.com**

**If we can be of additional assistance in this matter, feel free to contact the laboratory staff @ 605-773-3673.**

## **Evidence Intake**

The SD Forensic Laboratory Evidence section is responsible for the intake of incoming evidence to ensure the proper procedures are followed to maintain the highest level of integrity for the evidence. The evidence and case management is maintained in the Porter Lee Bar-coding, Evidence, Analysis, Statistics and Tracking (BEAST) online program which also disseminates immediate available laboratory results directly to the officer's desk computer. This section also provides education and training related to all aspects of the collection, handling, storage, maintenance and eventual final disposition of evidence collected for analysis.



**After Hour Evidence Lockers**

### **HOURS**

The hours for personal delivery intake are Monday - Friday, 8 a.m. to 5 p.m.

After hours evidence locker delivery is available. The appropriate paperwork must be placed in the locker with the evidence. Contact State Radio @605-773-3536 who will contact building security for access to this area after hours.

# ALCOHOL



Mark original container with identifiers.



Place the bottles in a cardboard box. Padding may be added to secure the item.



Seal the box with evidence tape.

## Helpful Tip

- If a fingerprint exam is required refer to the Latent Prints section for tips.

- If alcohol evidence is not considered crucial to prosecution, empty and discard containers at the scene and document said action in report and or property log. Photograph if possible.
- If alcohol is retained and there are several containers of the same brand, consider keeping one container of each brand and discarding the rest.
- Alcohol in original keg, case, six pack, or cooler container may remain as is. Mark and/or affix tag to the original container and secure to prevent loss of contents.

# ARSON



Place contents in friction lid can and seal with evidence tape.



Liquids should be no more than 2 ml and placed in a friction lid can filled with an absorbent material.



Heat seal clothing in a bag and seal with evidence tape.

## Don'ts

- Don't fill cans more than 1/2 full with a sample.
- DOT regulations prohibit mailing more than 1 oz of ignitable liquid.
- Samples must be collected in friction lid cans.
- Size of can should be proportional to the size of the sample.
- Cans should be sealed in storage until use.
- Polyester bags are to be used only for objects that will not fit into the friction lid can.
- Seal the bags with a heat sealer immediately after collection. Seal with evidence tape .
- Liquid questioned samples and liquid comparison samples should be placed into separate 2ml screw top vials.
- Place vials into friction lid can filled with an absorbent material such as cat litter or vermiculite.
- All soil samples should be frozen after proper packaging.

# AUTOPSY

An autopsy is required in all violent or unattended deaths to determine the approximate time and precise cause of death. An unattended death is one for which there was no preexisting illness, medical condition, or reasonable explanation.

Where there is reason to believe foul play is involved in a human death, and when a request is made by an authorized agency, SDFL personnel may assist a forensic pathologist during an autopsy. Contact the SDFL Director with this request at 605-773-3673.

Package, seal, and label all items recovered, making sure the pathologist/investigator describes the contents and places his/her mark of identification on each item or container. It is important that the investigator in attendance be equipped with adequate appropriate containers and sealing supplies to properly package clothing, body fluids, organs, hair samples, fingernail scrapings, etc.

## **Points of interest:**

Follow proper packaging procedures for all items in accordance with information provided in this manual.

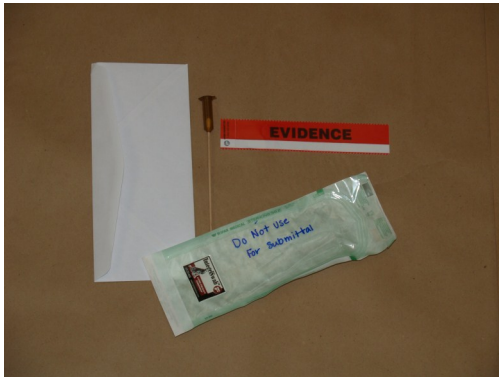
Pay special attention to wet clothing that must be air dried and possibly frozen to preserve evidence.

Bloodspatter evidence on clothing may be lost if clothing is not properly dried prior to freezing.





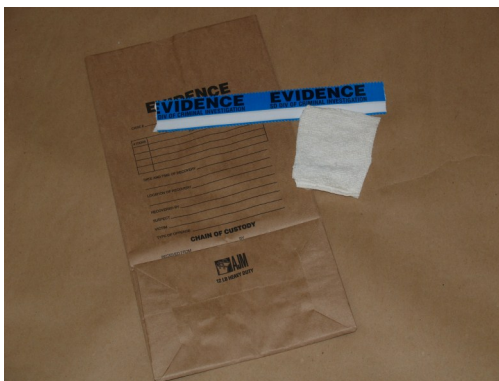
# BIOLOGY



Sterile swabs inside a swab-head tube can be moistened with a drop of water to collect dry stains. Package swabs in paper envelope.



Sterile swabs that are used to collect biological samples can also be packaged in a swab carton.



Use paper bags to package other items with dried biological stains.



Do not use DNA Database Collection kits to collect known reference samples for casework.

## Points of Interest

- Transport evidence the same day, if possible, or within 48 hours.
- A swab taken from the cheek inside the mouth is a buccal swab. Do not label any other swab sample as a buccal; they are a "swab".
- Don't freeze if a fingerprint exam is requested or if the item is metal.
- Semen or saliva samples on fabric swatch or swab may be packaged in the same manner as blood.
- Protect from sunlight, heat, and humidity to prevent sample from degrading.
- Keep evidence in a cool dry area after collection and during transport.
- Do not package in plastic or zip lock bags.
- If sample is on small object or clothing, package entire article.
- Known reference samples can be collected by rubbing sterile swabs against the cheek inside of the mouth. Air dry and package in paper envelopes or swab containers.



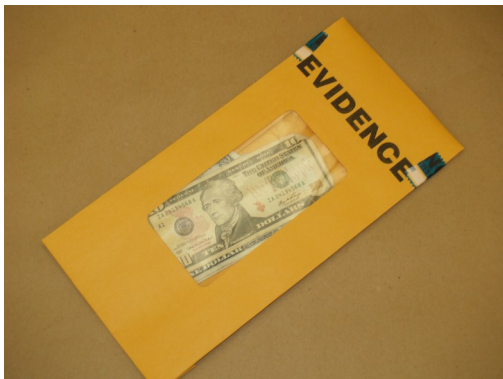
# CASH



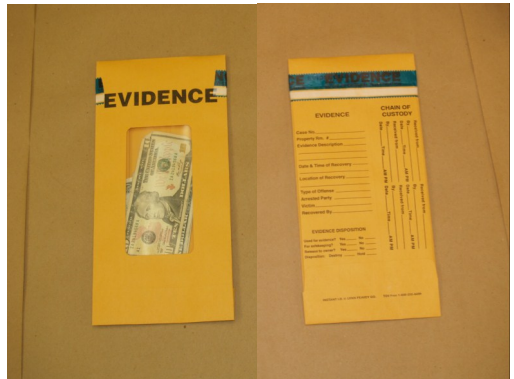
Photograph or photocopy cash and record serial numbers if necessary. Second person should count and verify amount.



Package money separately from other types of property. Package according to exam requested.



Evidence information should include total monetary amount and be initialed by both counters.



Seal with evidence tape.

**Important:**

The SDFL does not accept cash for storage.

- Record cash denominations on the BEAST prelog.
- Special storage considerations may be necessary for large sums of cash.
- Coin wrappers may be appropriate for large sums of coins.
- Items needing fingerprint or biology exams must be packaged in paper, not plastic.

# CASTS

## Footwear, Tire, Tool Impressions



Photograph the impression with a scale at a 90° with a scale in the photo.



Mark the back of the cast with identifiers and air dry prior to packaging.



Place in handgun box or appropriate sized box. Packaging material may be used to protect against breakage.



Seal box with evidence tape and affix tag.

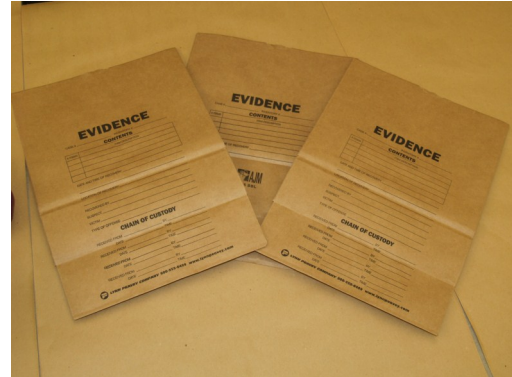
### Don'ts

- Don't package casts in plastic.
- Don't clean the cast or remove foreign material.
- Dental Stone is the preferred casting material.
- Casting of the tool marks should come secondary to the collection of the object containing the tool mark.
- Impressions in snow may be sprayed with Snow Print Wax or grey primer for improved photography and casting.
- Air drying for at least 48 hours is recommended.

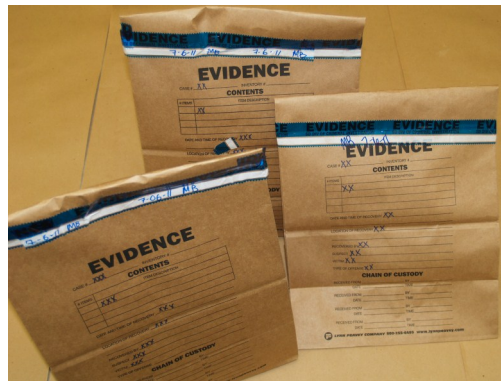
# CLOTHING



Mark clothing with identifiers.



Package each article separately in brown paper bag. May wrap in paper first to preserve trace evidence.



Seal bags with evidence tape.

## If wet or moist.

- Dry in a secure Drying Locker.
- Don't use fan or heat.
- Don't reuse hangers.
- Don't co-mingle articles.
- Several articles from the same source may be packaged and sealed separately, then placed together in a convenience container.
- If removal from the body is necessary, do not cut through or destroy areas that may need to be processed, (blood or semen stains, gunshot residue, entrance/exit holes, bank dyes, paint fragments, garment labels, etc.).
- If processing stains, protect from sunlight. Air dry and freeze and transport to lab as soon as possible.
- If in doubt about collection of stains or trace evidence, consult Lab Staff.

# COMPUTERS



When collecting computer towers seal with evidence tape around the covers.



Seal the front with evidence tape as well to prevent any of the drives being opened.



Collect the cords along with the lap top, if possible.



Place in separate plastic evidence bags and seal with evidence tape.

## Don'ts

- Don't operate computer to view data.
- Don't transport computers in the trunk of a police vehicle.
- Protect from static electricity, heat, and magnetic fields.
- Handle the item as FRAGILE evidence.
- Record the make, model, serial number, operating system, internet service provider, and password if available.
- If in doubt ask a forensic computer specialist. Altered or destroyed data may not be recovered.



# DIGITAL EVIDENCE



Place disks in plastic cases and seal with evidence tape.



Collect both the tape and the case if available.



Place in plastic evidence bag and seal with evidence tape.

## When Marking with Identifiers..

- Don't use a sharp or pointed writing implement.
- Don't use solvent based markers.
- Don't use adhesive labels.
- Do use a CD marker.
- Protect disks from extreme temperatures and humidity.
- Handle disks so as to minimize fingerprints or scratches to the surface which may impede the readability.
- Several disks or tapes from the same case should be labeled to distinguish them apart.
- A master envelope may be used to hold multiple disks if necessary.
- Be aware that biological evidence could potentially be on CDs/DVDs (i.e semen, etc) and should be properly packaged.

(Continued on next page)



If possible when collecting cell phones also collect the chargers.



Cameras, MP3 players, flash drives, SD cards and recording devices should be packaged the same as cell phones.



GPS devices and digital binoculars may also be important and should be packaged in plastic evidence bags.



Small items such as SD cards for cameras and mini SD cards for cell phones should be placed in a coin envelope before the plastic bag.



All items should be placed in plastic evidence bags and sealed properly.



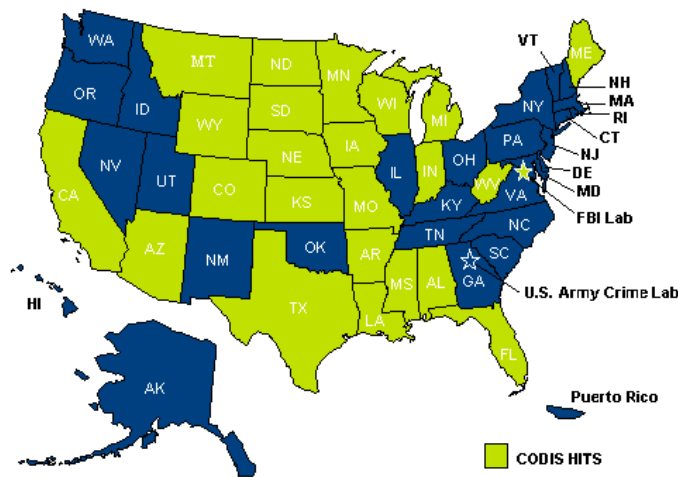
# DNA/CODIS



Use swabs to correctly obtain a useable DNA sample.

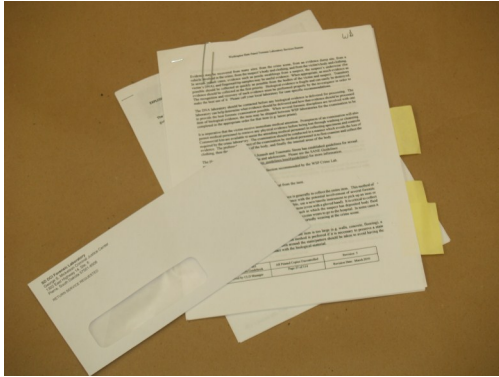


Cards must be correctly filled out and the circles must be white.

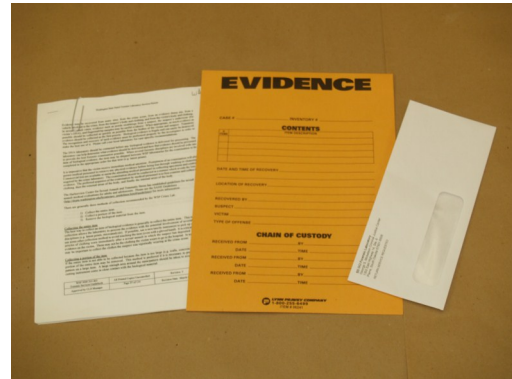


- Offender samples (those sent in for entry in DNA data base) are not evidentiary. They cannot be used as known samples. The samples cannot be used for case work.
- All eligible DNA profiles from case work will be entered into CODIS. ( If a suspect's DNA does not match other evidence it will not be entered)
- FTA cards cannot be used in case work because evidentiary samples need buccal swabs.
- The profiled DNA from the FTA cards which are submitted from all felony arrests are entered into CODIA by the SDFL staff.
- If the SDFL staff receives a CODIS his, a new known sample from the offender must be collected and submitted for verification.
- Buccal swabs are never entered into CODIS.

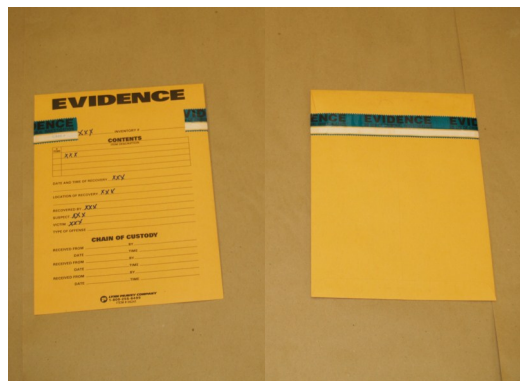
# DOCUMENTS



Mark the document with identifiers in an inconspicuous location.



Seal evidence in an appropriately sized plastic bag. However, if the document is a photocopy, package in paper as the plastic may leach the ink.



Seal the envelope with evidence tape and correctly fill in the information.

- Fill out the needed information prior to inserting the document into the envelope to prevent leaving unintended impressions.
- Tag should identify items as “Known/Standard/Example” or “Unknown/Questioned”.
- Do not fold, tape, cut, or otherwise alter the document.
- If item is to be fingerprinted, place in paper bag and seal with evidence tape.
- Known samples should be marked with identifiers and numbered in the order written.

## Helpful Tips

- If moist, air dry in a Drying Locker prior to packaging.
- If charred or burned, package in a rigid container between layers of cotton. Label as FRAGILE.



# DRUGS

The South Dakota Health Laboratory is responsible for the drug analysis testing.  
Their contact is 605-773-3368.

**Points of interest:**

- If requesting drug analysis from the Health Lab and the original container(s) is to be processed for latent prints or any other exam as well, please submit the evidence to the SD Health Laboratory first and include a BEAST prelog for the appropriate request(s). The State Health Lab will contact us when the drug analysis is completed and we will retrieve the evidence.
- Larger items like triple beam scales, bongs, growing/manufacturing equipment etc. may be boxed in cardboard, marked and sealed.



# EXPLOSIVES

The SDFL will not store explosives. This includes all categories of fireworks, bomb, military munitions, gun powder, blasting caps, or other components with incendiary potential.

## Photograph and Document:

- Do not attempt to determine if the suspicious possible explosives are stable or unstable.
- Contact the Division of Criminal Investigation in Pierre or the ATF offices in your area immediately for assistance:
  - Division of Criminal Investigation 605-773-3331
  - ATF - Sioux Falls Office 605-782-8200
  - ATF - Rapid City Office 605-335-0015
- Appropriate sampling containers will be provided and the type of testing will be determined on site.

## Points of Interest:

The following is a list of DCI Special Agents specializing in explosive materials.

Ass't Director Dan Satterlee, Pierre	605-773-3331 (office) 605-940-2157 (cell)
SA John Griswold, Rapid City	605-255-5407 (cell)
SA Jason Baldwin, Pierre	605-295-1936 (cell)
SA Brent Gromer, Rapid City	605-381-1784 (cell)
SA Chad Metzinger, Pierre	605-295-0631 (cell)
SA Riley Cook, Sioux Falls	605-677-9424 (cell)

# FIREARMS & AMMUNITION



Place long guns in appropriately sized boxes and secure with plastic ties.



Place a plastic cable tie as a locking device to make the firearm temporarily inoperable.



Place hand guns in a hand gun box and secure with plastic ties. Make gun inoperable by using a plastic cable tie.



Seal with evidence tape.

## Don'ts

- Don't clean, dry fire, test fire, take apart, or work the action, except to unload.
- Don't package ammunition in the same box as firearm.
- Don't place any object in the barrel (plastic tie straps used to show the firearm is unloaded is an exception).
- Don't clean bullets from a crime scene or autopsy.
- Record the condition of the firearm before handling (i.e, position of hammer, safety, slide, ect.). Also record rifle scope settings, if available.
- Make the firearm temporarily inoperable using a plastic cable tie as a locking device, unless it would adversely affect forensic testing. Do not place locking device through the barrel of the firearm.
- Unload and remove ammunition and/or magazines after documenting positions. Handle with care to preserve possible fingerprints, biological, or trace evidence.
- If the firearm is evidence, mark it with identifiers (i.e, name, initials, date) and place in a gun box and secure with cable ties or wrap with paper to prevent shifting. Tag should include caliber/gauge, make, model, serial #, and action type if evident.
- **ALWAYS check the status of the firearm through NCIC for stolen or wanted before submission.**



- Always include NIBIN exam request on all firearms submittals and all fired cartridge cases.
- Remove ALL ammunition, magazines or other loading devices from the firearm. **Do Not** remove the ammunition from the magazine or loading device if fingerprint exam is needed.
- When removing ammunition from a firearm, document the location or position in chamber or magazine.
- Wrap bullets in gauze or cloth and place in individual rigid containers. Do not wrap bullets, fragments, etc., in cotton or tissue paper.
- Wrap each cartridge separately in tissue paper and place in individual envelopes. Mark package with identifiers and seal with evidence tape.
- Do not mark ammunitions with identifiers. Preserve marks from rifling, breaching, chambering, ejection, or prints on casings.
- Bullets found embedded in objects should be removed in a manner that does not alter the marking. If possible, remove a portion of the object, leaving the bullet intact.
- When collecting shotgun pellets, 10 to 30 pellets are needed for analysis, if possible.
- Submit all fired evidence cartridge cases/shells recovered.
- Boxes of unfired ammunition for comparison may be submitted in the original container or in a larger box as long as the box is properly sealed.



- Empty magazines, empty ammo pouches, slings, scopes, speed loaders, and holsters may be packaged with the firearm. Magazines should not be inserted.
- If a firearm is found in water, then keep submerged in the same water and package in water filled container if available (i.e Rubbermaid Tote). Do not air dry the firearm or condition will deteriorate. Transport to the Lab the same day if possible.
- If possible, affix tag to a plastic cable tie and put through working mechanism of the firearm.
- If the firearm is cased both the gun and the case need to have tags affixed. Log separately from all other types of property to maintain integrity.
- Packaging should indicate whether the firearm is loaded or unloaded.
- Do call the lab ahead of time if a loaded gun must be submitted. Mark the packaging with: **WARNING: LOADED GUN.**

# FIREARMS DISPOSAL

## SD Forensic Laboratory

### Policy for Controlled Weapons and Firearms Disposal

Section 23A-37-13 of the SD Codified Law describes "Controlled weapons and firearms disposal". Any controlled weapon or firearm used in violation of chapter 22-14 shall be disposed of as follows:

1. If it is stolen, it shall be returned to the lawful owner upon proof of ownership: or
2. If it is illegal, it shall be destroyed pursuant to law: or
3. If it is neither stolen nor illegal, it shall be delivered to the arresting agency or, at the direction of the Attorney General, to the SD Forensic Laboratory for scientific examination purposes, for lawful use or disposal.

In the case of a disposition pursuant to subdivision (3), the arresting agency or forensic laboratory may use, trade-in, destroy, or sell, as provided in 5-23-32,5-24-9.2, or 6-13-6, the controlled weapon or firearm.

Also, in the case of a disposition pursuant to subdivision (3), a court order for release to the SD State Forensic Laboratory must accompany all weapons delivered to the lab.

Please list the original offense, date of offense, name of subject, your case number, and full description of each weapon and any other pertinent information to your case.

The NCIC teletype weapons check (or a copy) must also be attached indicating the weapon is not entered into the NCIC system at the time of delivery.

Any weapon which is a biohazard or has been processed for latent fingerprints must be clearly marked with a BIOHAZARD sticker.

A signed BEAST prelog for each case number must accompany the weapons delivery. Request a "NIBIN" exam and "Compliance with SDCL" exam for each weapon.

Source: SL 1983, ch 188, § 2; SL 1998, ch 151, § 1; SL 1999, ch 128, § 2; SL 2006, ch 137, § 1.

#### Points of Interest:

- Package each weapon in an approved gun box and seal with evidence tape.
- Ammunition is no longer accepted for destruction at the SDFL.



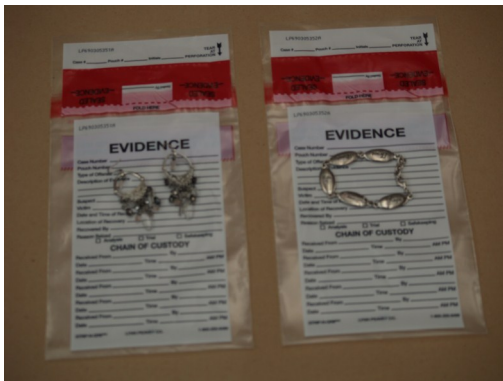
# JEWELRY



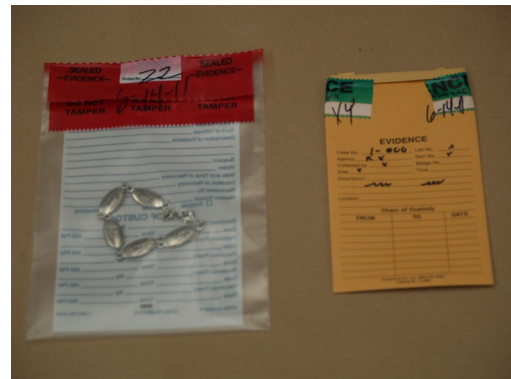
Log all pieces of jewelry separately, not as "assorted jewelry".



Depending on the exams being requested paper or plastic packaging may be used.



Label each bag or envelope with needed information.



Seal plastic bag or envelope with evidence tape.

## Helpful Tips

- A pair of earrings may be packaged together in the same envelope or plastic bag.
- Use discretion when marking jewelry with identifiers, so as not to devalue the item.
- Jewelry should be described as yellow, white, clear, etc. as opposed to gold, silver, diamond etc. to protect yourself from value controversy.
- Special storage considerations may be necessary for extremely valuable items.
- Items needing fingerprint or biology exams must be packaged in paper, not plastic.



# LAMP FILAMENTS



Collect both the entire lamp and all bulbs if possible.



Push bulb through a hole cut into the bottom of a cup. Cut the bottom out of a second cup. Leave the third cup as is.



Place the open ended cup over the cup containing the bulb.



Place the last cup on top. Seal box with evidence tape and affix tag.

- When collecting the entire lamp make sure to protect the filament inside.
- Collect all bulbs from any vehicle head, tail, brake lamps, and turn signals in question.

- The lamp filament is critical to analyzing on/off characteristics and must be protected.
- Bulbs packaged in Styrofoam cups may be placed in a box for further protection.
- Collect entire lamp and housing unit and place entire lamp in a box. Seal with evidence tape.

# LARGE or BULK



Record serial number and model numbers if present. Record the tire's manufacturer model, type, and size. Large items will not normally fit in standard size packaging.



Affix tag with clear tape, plastic tie, or string. If necessary to preserve prints or trace evidence, use sterile plastic or cloth material to cover or enclose item.

## SDFL STORAGE

- Large items may be stored in police garage, if necessary, due to space constraints in the evidence room.
- Special arrangements may be necessary for abnormally large items of critical importance.

## Tires

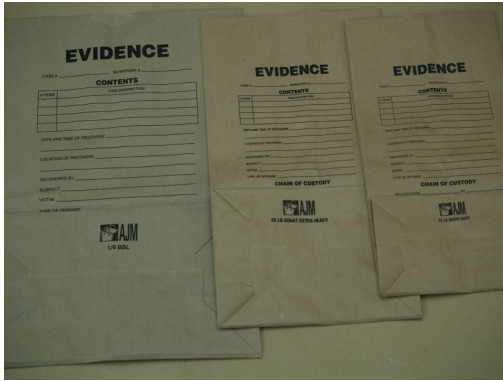
- Don't use plastic covering when the tire contains blood or moist evidence.
- If tread pattern and wear is relevant, take photographs with scale and tread lifts. Protect tire from additional cuts or marks to tread.
- Tread depth should be measured with a tire depth gauge, if needed.

## Motor Vehicles:

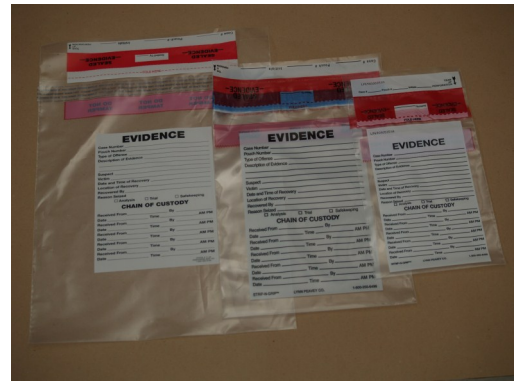
- Vehicles requiring processing for evidence should be sealed with evidence tape and transported in an enclosed trailer. This is to prevent loss or destruction of evidence.
- Always check wanted or stolen status of vehicle in police custody.
- All vehicles in police custody should be inventoried for valuables before leaving the scene.
- Seal with evidence tape.



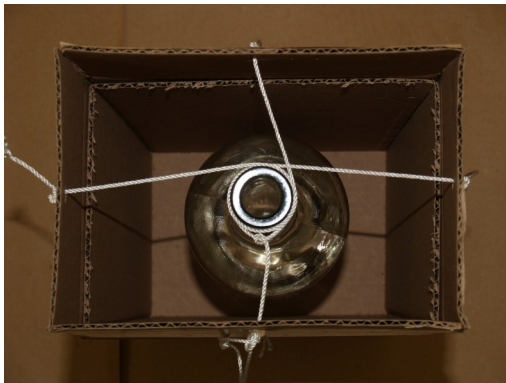
# LATENT PRINTS



Paper evidence bags



Plastic evidence bags



Item secured with a string



Properly seal and date with initials across evidence tape.

## Don'ts

- Don't cover exhibits to be examined for latent prints with evidence tape.
- Don't wrap nonporous items in cotton or cloth as they damage or destroy the latent prints.
- Fingerprint cards and lifts can be packaged in paper or plastic.
- Items not processed should be packaged in paper or cardboard only, no plastic.
- Items that have been superglue fumed can be packaged in either paper or plastic.
- Items related to drug cases (residue) should be packaged in plastic.
- All items should be packaged separately- one item per bag if possible.
- Items should be secured within the package to prevent loss of prints.

(Continued on next page)

## Materials and Methods

Non-Porous/Hard Surface Items (i.e, metal, glass, plastic, etc.)

Package in paper bags or cardboard boxes to avoid movement (not plastic bags).

Porous/ Absorbent Items (i.e, paper, cardboard, currency, checks, etc.)

Package in manila envelopes or paper bags.

Soft/Pliable Items (i.e, vinyl, leather, rubber, wax, caulk, putty, etc.)

Package secured to a fixed surface to avoid movement, crinkling, or folding (no plastic bags).

Visible Print Items (i.e, blood, dust, adhesive coated surfaces, etc.)

Package secured to a fixed surface to avoid movement, crinkling, folding or adhesion to packaging (no plastic bags).

Special Surfaces/Conditions

Contact the Latent Fingerprint section of SDFL for instructions on submission and preservation.

**Note:** Any print in blood needs to be air dried before packaging and submission. In addition, visible prints should be documented and photographed prior to submission.

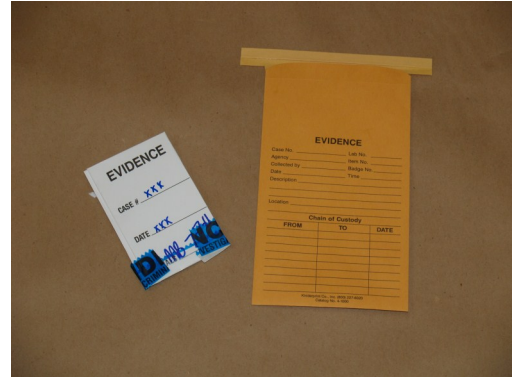
- Use gloves to pick up items of evidence being careful not to wipe possible latent prints off the surface.
- Fasten down large articles containing latent prints with string, wire, or tie straps to prevent shifting and contact with other items. Label containers with the words “latent print evidence”.
- Put developed latent lifts in envelopes, mark, and seal.
- Place papers and documents containing latent prints in manila envelopes or cardboard boxes and seal.
- Take complete and legible, inked print standards of all the ridges on the fingers and palms of subject.
- Include inked fingerprint and palmprint standards of all individuals who may have handled the items before or after the crime.
- Treat all inked print standards as evidence, seal, and package.
- List all descriptive information of individuals being named for latent print comparison. (i.e, DOB, SS#, First, Middle, Last name)
- Mark the packaging with the biohazard symbol if it contains bloodstained evidence.
- Treat CD/DVDs with latent print images as evidence and seal package correctly.
- Superglue fume nonporous evidence before submital to the lab if possible.



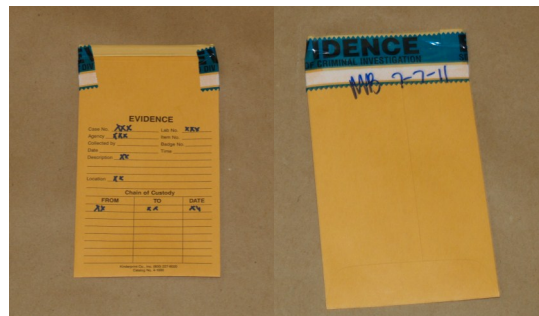
# PAINT CHIPS



Place paint chip in a paper bundle.



Fold bundle and secure with evidence tape.



Place bundle in envelope. Seal with evidence tape.

## Don'ts

- Don't use adhesive tape to collect evidence.
- Don't store unknown sample and known sample in the same envelope.
- Collect all unknown paint samples. If possible, collect samples from the known for comparison.
- Known sample should be about 1/2 sq. inch and contain all layers.
- Clothing containing paint chips should be wrapped in paper to protect against loss of paint and packaged as described under clothing.
- When collecting paint from large items, attempt to flake or scrape in a manner that obtains and preserves as many paint layers as possible.

# PHYSICAL MATCH

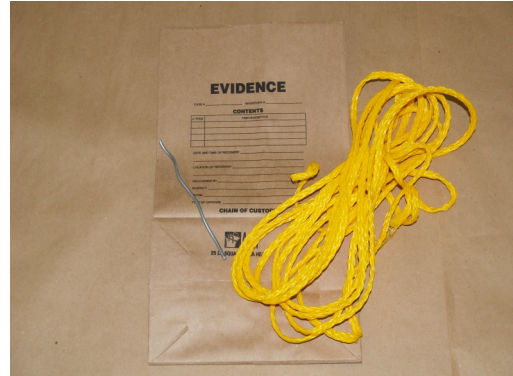
It is possible to examine fractured, torn or cut items to determine whether or not they at one time formed a single, intact item. These items may include broken car parts, knives, tapes, lenses, boards, etc. Each piece of the item in question should be packaged separately taking care to avoid any further damage to the fractured surfaces of the pieces.

- Package each item in question separately taking care to avoid any further damage to the fractured, cut, torn, or severed surface.
- Mark each package where the item(s) was/were located.
- Submit all rolls of tape found. If the questioned or known tape must be cut, specify which area/end(s) was/were cut by labeling those ends.
- Submit all pieces found at the scene involving a vehicle.
- Collect clothing (not just shoes) from subjects for glass examination.
- Collect glass samples from all broken sources of glass at a scene.
- Package glass from different sources and locations separately.
- Place fragments in plastic containers, then in bags or envelopes, seal, and mark.
- Mark the inside and outside of glass from laminated glass sources such as windshields.
- Place large glass shards in bags or boxes, but separate individual pieces with newspaper to prevent breakage and damage to edges. Mark inside or outside of glass and pack together in a single marked container.
- Don't package small glass fragments in paper envelopes or bags without first being placed in leak proof containers.
- Don't attempt to reconstruct items. This may obliterate fine microscopic details used in comparison.
- Don't process items for latent prints prior to submitting.

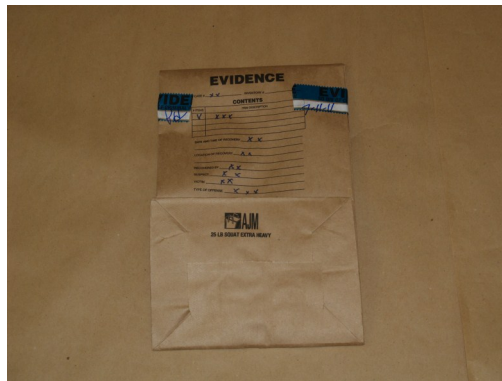
# ROPE/WIRE



Collect as much of the suspected rope as possible. Mark ends of material for comparison.



Place rope in paper bag of an appropriate size.



Seal bag with evidence tape.

## Don'ts

- Don't cut or untie knots in the rope.
- Don't kink or twist wire.
- The item may be wrapped in paper to protect against damage.
- Knots in rope should not be loosened or disturbed.
- If cutting a noose for removal, reattach or bind the ends together with string to show the original.



# SEXUAL ASSAULT



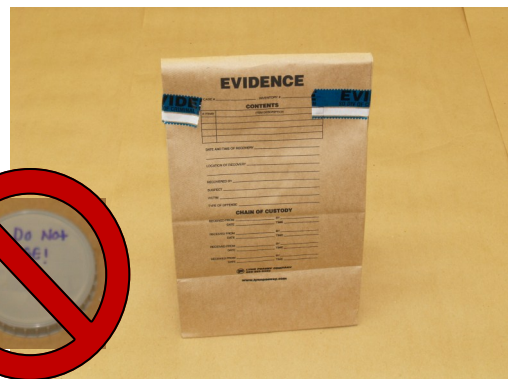
A used condom is observed.



Place the condom inside a clean urine collection container. **Do not put the lid on the container.** Discard lid.



Place the upright container into a small paper bag.



Seal the bag and maintain the bag in an upright position.

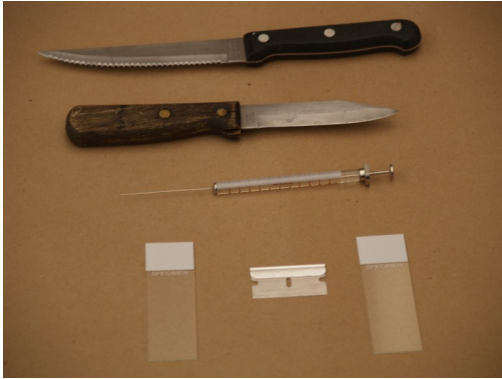
## Special Attention

**Bottles/Containers with liquid:** Preferably the liquid should be removed. Liquid should not be dumped out but instead removed through a small hole in the bottom.

**Condoms:** Place in a plastic specimen jar. Don't put the lid on – put in a bag and seal.

- Generally the best way to preserve biological evidence is dry and frozen.
- Moist samples should be air dried prior to packaging.
- If freezing is not an option, biological evidence should be stored in a cool, dark, and dry place.
- Protect items from exposure to sunlight, heat and humidity to prevent degradation of DNA.
- Use clean paper bags, envelopes, cardboard boxes, or some other breathable packaging material.
- Do not use plastic bags or containers (exception of liquid blood or condoms as described).
- Each item should be packaged separately - one item per container.

# SHARPS



Mark item with identifiers and preserve any evidence adhering to the items.



Package in knife box or other sharps container.



Secure items in knife box with plastic ties and seal all containers with evidence tape.

## Don'ts

- Don't attempt to recap syringe.
- Don't use the styrofoam if the item is considered biological evidence.
- Don't air dry items found in water. Keep in original water.
- Use extreme care when dealing with syringes. If possible wear protective gloves and face gear.
- If item contains wet blood or body fluids, air dry in a drying locker before packaging.
- If recovered in water keep submersed in the same water and package in water filled container.
- A sheathe may be packaged with a knife unless evidentiary value will be damaged.
- Pieces of broken glass must be packaged in a box. Avoid packaging several pieces of glass in one container to protect potential evidence.
- Always plainly mark the storage box with the word SHARPS or affix a SHARPS sticker.





# SKELETAL REMAINS



## **Don'ts**

- Don't excavate the skeleton using heavy machinery or large shovels.
- Don't mix bones that can be identified as left or right.
- Secure scene and immediately notify DCI SDFL of the discovery of human skeletal remains.
- Try to recover all bones present.
- Recover all trace evidence found with the body.
- It is impossible to determine when insect evidence may prove useful in a death investigation. Therefore, process an Entomology Kit at the scene, following the directions in the kit.
- Package clothing and other evidence items separately from skeletal remains.
- Photograph and map all bones prior to recovery.
- Label each package with the biohazard symbol and label.

(Continued on next page)

Each SD DCI crime scene unit is trained in the detection and proper recovery of surface and buried remains. SD DCI does not conduct examinations on skeletal remains. The medical examiner or designee or a trained forensic anthropologist should perform these examinations. Contact SDFL for information on available resources for Archeology and Anthropology examinations.

No two skeleton scenes are exactly alike. Variations, whether congenital or acquired, are used to identify or eliminate a missing person who could be the skeletonized victim. In many cases, if most of the skeleton can be located and properly collected, the following conclusions may be reached:

- estimations of race, stature, age, and sex
- determination of the possible cause of death through damage to skeleton
- evidence of possible ante mortem trauma or certain diseases through X-ray and microscopic examination
- estimation of time of death through examination of associated items such as coins, clothing, shoes, or other materials

### **Collection and Submission of Evidence**

- a. Careful examination and collection of skeletal remains are necessary to achieve accuracy and to facilitate reassembly. If possible, the medical examiner or designee should see the bones at the site while they are being excavated.
- b. Take good general photographs with scale of the bones and associated evidence prior to collection.
- c. Inventory the bones while they are being removed from the ground.
- d. Some smaller bones are extremely fragile and decay rapidly. Even when present, they may be overlooked because their coloring can be similar to the soil.
- e. Proper packaging, labeling, and transportation of skeletal remains is important. Packaging should be done in a manner that makes the examination more rapid and should be done at the scene to avoid loss of small bones and teeth. Use separate containers for each hand and foot and label right and left.
- f. Package evidence items found with the skeletal remains separately using proper procedures outlined in this manual.



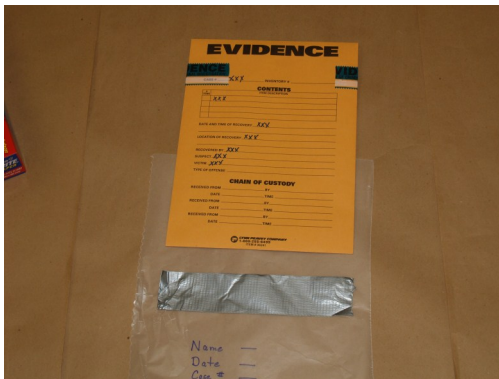
# TAPE



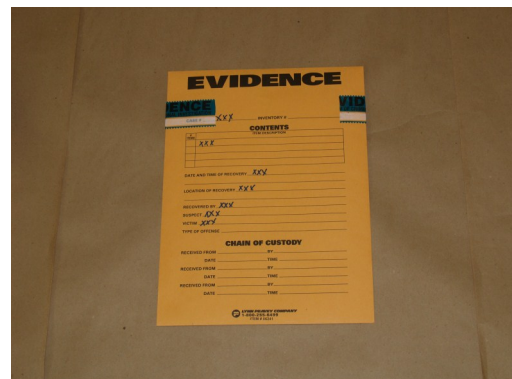
Protect ends of adhesive tape for comparison. Preserve latent prints and visible or plastic prints on sticky side.



Place sticky side down on wax paper or heavy plastic. Mark wax paper with identifiers. Wrap wadded tape in wax paper.



Place tape in envelope and seal with tape.



Seal envelope with evidence tape and affix tag.

## Don'ts

- Don't store strips of tape in the same package as the roll of tape.
- Don't cut, wad, or separate tapes that are stuck together.
- Ends of tape can be compared to original roll for positive identification or similarities in color, composition, and construction.
- This packaging method will also preserve trace evidence on tape.
- Store rolls of tape in a separate paper bag.

# TOOLS



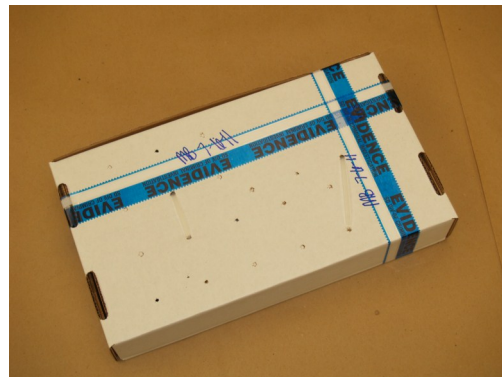
Tools in all shapes and sizes may be important in an investigation.



Secure the tool in a hand gun box with plastic zip ties.



Protect the suspected area when packaging the item.



Close and seal the box with evidence tape.

## Don'ts

- Don't attempt comparison by fitting tool into tool mark impression.
- Don't use tool for anything except to make known standards.
- Don't submit tool marks involving property crimes without prior approval from the Firearm section supervisor.

- Mark tools with identifiers such as name or initials and date on the opposite end needed for tool mark comparison.
- Preserve ends by wrapping the ends with soft paper to preserve paint chips or other trace evidence.
- Plastic ties may be used to fasten tools inside the box to prevent damage caused by shifting or contact.
- Package all tools separately.
- If a tool contains blood or other body fluids air dry in drying locker, package and attach a biohazard label to the side of the box or envelope.
- If the tool is believed to contain trace evidence and the source of the evidence is known, samples should be collected from the known source prior to mark comparison.

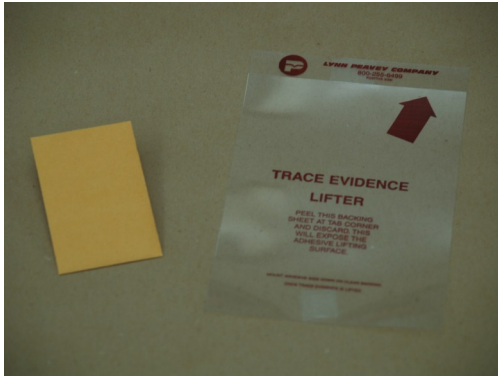
(Continued on next page)



Other examples of how to package certain items for submittal:



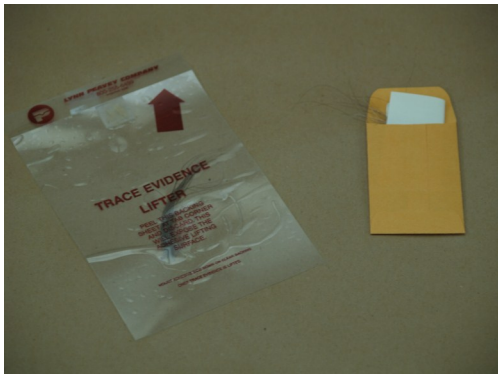
# TRACE EVIDENCE



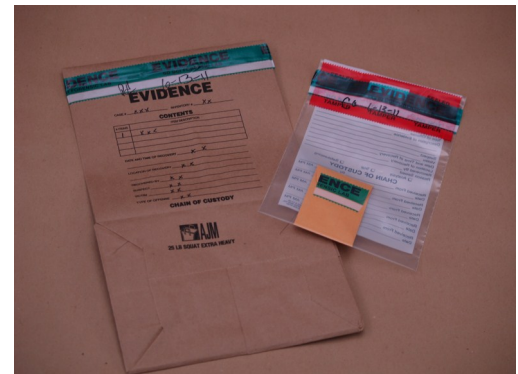
For hair and fiber evidence, it is important to use small item packaging or adhesive packaging to avoid losing such small items of evidence. Here is a coin envelope and an adhesive trace evidence lifter.



Hair/fiber evidence can be held in place using masking tape (lint roller) post-it note or by peeling back the trace evidence lifter and sticking it to the adhesive inside. If you use a lint roller, do not fold or stick the tape to paper.



After hair/ fibers are secured in place, protect them by placing the trace evidence overlay back on top of the evidence and adhesive. If you use a post-it note, place inside a coin envelope to secure evidence.



Finally, put small packaged items in a larger sealed evidence bag and properly label. All hair evidence needs to first be packaged in paper (such as a coin envelope or paper bundle) before placing into a plastic evidence bag.

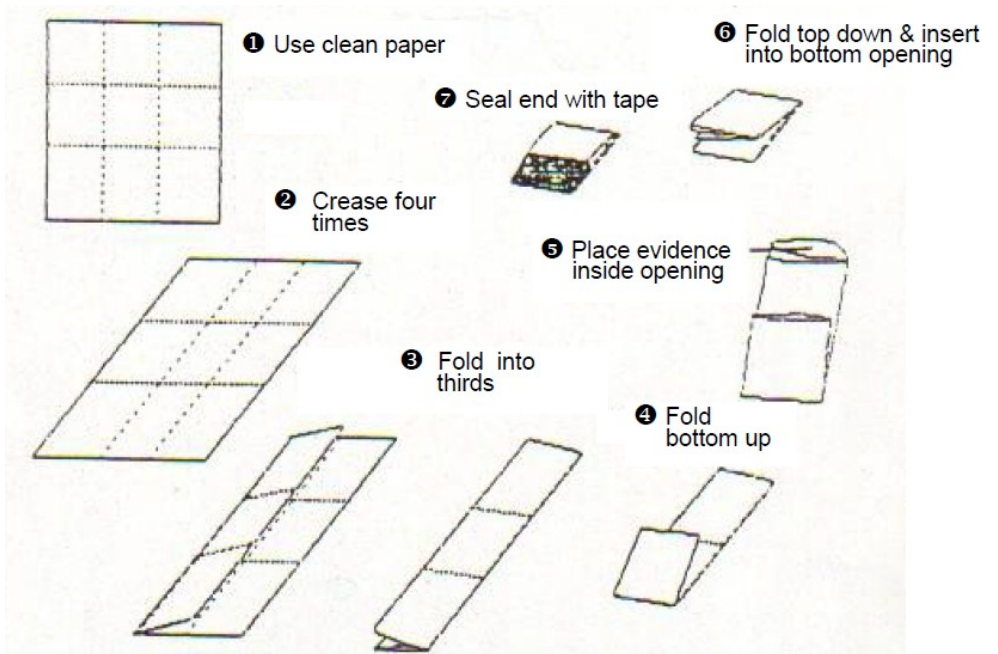
## Don'ts

- Don't try to remove fused or embedded fibers in an item.
- Don't submit items from victims/suspects known to have routine contact.
- Don't package items from the victims and or subjects together. Do not allow items anywhere near each other.
- Package hair and fibers by folding in paper and securing in individual envelopes. The sticky side of a Post-it can be used to affix hairs and fibers, fold.
- Use manila envelopes or debris folds for long fibers, threads, or yarn.
- Adhesive lifts that have been put onto plastic sheets can be placed into paper envelopes.
- Submit entire rope/cord. If the rope/cord must be cut, specify which end(s) was/were cut by taping and labeling those ends.
- Completely dry all wet items, but keep items away from fans. Fans may dislodge trace evidence.
- All should be packaged separately, labeled, and sealed properly.



- If collection trace evidence from small object, package entire object. Do not remove the trace evidence.
- Collect and preserve items from all victims and subjects as soon as possible after the incident.
- Hair/fibers from different individuals should be packaged separately.
- Evidence fibers should be packaged separately from fiber standards.
- When collecting trace evidence in a vehicle, send photographs of the vehicle and where the item was taken from.
- Vacuum traps can be covered with a lid or cap and placed into separate containers such as paper bags.

## Paper Bindle Instructions



- Paper bindles are commonly used for storage of trace evidence such as hair, fibers, paint chips, or other minute particles.
- Paper bindles are preferred over plastic containers for trace items that may be moist, carry an electrostatic charge, or require DNA analysis.
- Paper bindles are preferred over envelopes for trace items because they lack manufactured folds, corners, and openings where evidence can be lost. If an envelope is used, tape all corners to ensure the envelope is completely sealed.
- Seal a bindle with evidence tape. **Do Not staple.**
- A sealed bindle should be placed inside a coin envelope.

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