

Forensic Toxicology Service Guide for Authorized Sample Submission

U.S. Postal Service Mailing Address:
Utah Forensic Toxicology Laboratory
PO Box 144300
Salt Lake City, UT 84114-4300

Physical Address:
Unified State Laboratories: Public Health
4431 South 2700 West
Taylorsville, UT 84129

Evidence Phone: 801-965-2451 / 2452
Evidence Fax: 801-965-1315

Office Phone: 801-965-2400
Office Fax: 801-536-0178

Email: forensictox@utah.gov
Website: <http://www.health.utah.gov/lab/toxicology/index.html>

Services Manual

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Mission

The Utah Forensic Toxicology Laboratory (UFTL) conducts toxicological analyses, issues written reports of results, and provides expert witness testimony and consultations on relevant matters related to criminal statutes in the state of Utah. These services are provided to the Office of the Medical Examiner (OME), law enforcement agencies, and other governmental entities involved in criminal matters in the state of Utah.

The work at UFTL involves the analysis of biological samples (primarily blood and urine) to determine the presence of impairing drugs. Toxicology analyses are used to:

- Assist the OME in determining cause and manner of death (Utah Code Section 26-4-7);
- Provide information in cases involving automobile homicides (Utah Code Section 76-5-207) or suspects driving under the influence (DUI) of alcohol and/or drugs (Utah Code Section 41-6a-502).

Quality Statement

The UFTL will continually strive to meet customer needs by ensuring the quality, reliability, objectivity, and relevance of its laboratory testing and data through a continual quality management program.

The quality system applies to all work performed in the laboratory's facility and has been designed to meet the requirements for laboratory accreditation & standards established by the American Board of Forensic Toxicology, the Society of Forensic Toxicologists, the American Academy of Forensic Sciences, ANAB and other authorities as appropriate.

Specimen Submission Requirements

Specimen submission requirements are summarized in:

[Appendix A: Quick Reference Guide for Delivering Specimens](#)

[Appendix B: Quick Reference Guide for Mailing Specimens](#)

1. The UFTL does not provide specimen collection services. A certified phlebotomist or properly trained OME technician must collect blood specimens in accordance with universal safety precautions. Urine specimens are collected through properly trained and controlled collection protocols.
2. Specimen Documentation
 - All samples collected under forensic chain of custody practices must be correctly prepared and documented for submission to the UFTL

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- Samples submitted by the law enforcement agencies can utilize either the UCJIS electronic lab ordering system or by completing and including an analysis request form (see below)
- To submit samples via UCJIS, each law enforcement agency must receive training and authorization from their appropriate liaison in the department of public safety. The UFTL does not control or monitor access to this system.
- For submission using the Toxicology Analysis Request Form, it must be completed and included with the specimen(s). The current form is available online on the <https://uphl.utah.gov/forensic-toxicology/>
- The submitting officer/evidence technician, etc. is responsible for accurately completing the request form. Any omissions or errors will require documentation of corrective actions and can delay testing.

3. Specimen Containers

- Blood: The recommended container for blood collection is a 10mL gray top blood collection tube containing both a preservative (100 mg sodium fluoride) and an anticoagulant (20 mg potassium oxalate). The preservative helps prevent deterioration of drug in the specimen and the anticoagulant prevents the specimen from clotting. The most common tube for this is the BD367001 which can be obtained through a variety of commercial vendors Note: the UFTL does not provide these collection supplies, but can advise on state contracted vendors for collection tubes, shipping kits, etc. Please email forensictox@utah.gov for more information.
- Urine: The recommended container for urine collection is a container designed specifically for urine collection, shipment & testing. On-site test cups or hospital collection cups are typically not tolerant to shipping and should not be sent to the lab (unless specifically designed otherwise). Ensure that the container is tolerant to shipping conditions as well as freeze/thaw cycles. Preservatives are not required.
- Several vendors provide pre-made kits that are specifically designed to meet the needs of forensic toxicology testing. Below are some examples and not meant to suggest an endorsement. Please contact the lab (forensictox@utah.gov) for current state contracted vendors.
 - <https://www.tritechforensics.com/products/specimen-collection/Blood-Urine-Specimen-Collection/bu-3-blood-and-urine-specimen-collection-kit-2-tubes-1-bottle-25-case>
 - https://www.lynnpeavey.com/product_info.php?cPath=40_59&products_id=399
 - <http://www.crime-scene.com/store/a-bau-10-blood-and-urine-alcohol-specimen-collection-kit.shtml#>
 - <http://www.sirchie.com/blood-urine-specimen-collection-kit.html#.WXt5nIjyuUk>

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4. Specimen Volume

Minimum Specimen Volume Requirements For Testing	
Blood	20 ml (2 x 10mL gray top tubes)
Urine	20 ml (in a single container or split between two vacutainer-style tubes)

Note: These volumes are ideal. The lab understands that sometimes less volume is all that is available. The lab will work to determine testing priorities in cases with limited sample volume.

5. Specimen Type

- Always collect blood for cases involving driving performance and/or impairment.

6. Collect urine for cases on which the presence/absence of a substance is sufficient and drug facilitated sexual assault cases. Urine is NOT suitable for determining impairment at the time of driving/incident, only past exposure to a drug.

7. Specimen Labeling

Using water-resistant ink, the specimen tubes MUST be labeled, at a minimum, with the following information:

- The suspect’s first and last name; and
- The agency’s case number.

8. Specimen Seals

- A tamper-evident seal must be placed across the top of the stopper or cap of the specimen container, NOT around the perimeter of the cap-tube interface. (Think pole-to-pole, NOT equator)
- The person sealing the specimen container must initial and date the seal. DO NOT use identification labels to seal the tube.
- NOTE: this is an evidence seal to ensure specimen integrity during shipping. It is not a leakage seal.

9. Specimen Storage

- Specimens should be kept secure and refrigerated until shipped or delivered to the laboratory. In general, prolonged storage at room temperature (or higher) will degrade any analytes in the sample.

10. Specimen Chain of Custody Information

- Ensure that the chain of custody information at the bottom of the Toxicology Analysis Request Form is completed prior to submitting the sample. Any internal agency chain-of-custody protocols should be followed.
- A blank chain of custody document is offered on our website as a courtesy. These are to be maintained within the agency and should not be submitted with the specimens.

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11. Specimen Submission Methods

- In-person delivery of specimens to the laboratory
 - Each sealed and labeled blood specimen tube must be placed in an envelope or other sealable container. Urine containers must be placed in a sealable plastic pouch or other sealable container. These containers must be sealed, initialed, and dated by the person sealing the container.
 - Specimens can be delivered to the Laboratory through the delivery entrance of the laboratory (North side) during business hours.
 - NOTE: The sample receiving window can experience periods of high volume. Please feel free to contact the laboratory prior to drop-off if you are time-limited.

- Mailing Specimens to the Laboratory

Each Specimen tube or container must be labeled, sealed, initialed and dated. The tubes must be packed into blood collection/shipping kit as instructed by the vendor. Urine containers must be placed in the sealable plastic pouches in the urine collection kits. These containers must contain sufficient absorbent material to absorb the entire liquid contents of the collection tube/container in the event of breakage/leaking during transit.

These containers must then be placed in a crush-proof shipping container made of cardboard. If not pre-printed on the cardboard container, biohazard labels must be affixed to the exterior.

It is also required that the inner and outer containers used for the specimen tubes and container be sealed, initialed and dated by the person sealing the container.

Mailed specimens must meet blood borne pathogen shipping requirements and be packaged to fully contain leakage/spillage in accordance with applicable federal laws (PHS 42 CFR Part 72, rule 173.199). https://pe.usps.com/text/pub52/pub52apxc_024.htm These measures are necessary to protect your agency personnel, postal/delivery personnel, and laboratory staff from exposure to disease in the event that the specimen tubes leak or break in transit. Specimens that have leaked will be returned to the submitting agency.

Please see above for commercial vendors of approved kits. Proper use of these vendor provided kits will ensure safe and proper delivery to the lab. If an agency chooses to create DIY kits, they must comply with all the above requirements for safe and proper shipment to the lab.

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Analytical Results

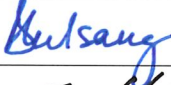

- The UFTL issues final reports to the submitting law enforcement agency electronically by secured/encrypted email. Final reports are also uploaded into the UCJIS database for access to authorized agencies/individuals.
- The date range for performance of all laboratory activities commences when the case is received at the laboratory and finishes when the case is closed and final reports are issued to the submitting law enforcement agency.
- The appropriate analytical methods are selected by the laboratory based on the test request submitted by the customer. The submission of evidence constitutes agreement to this notification.
- When final reports are not available, preliminary reports may be issued upon request.
- Laboratory results are considered “private” under State GRAMA laws. Release of records will be in accordance with current State law. Please contact the laboratory with any questions.
- A “negative” result on a toxicology report, does not necessarily mean drugs were not present or ingested. Only that the lab either does not test for a particular drug (see below) or that reporting criteria were not met. Please contact the laboratory with any questions.
- If the customer needs further testing, that is not within the testing panel provided by UFTL, the customer may send the test request directly to the external provider.
- Any deviations that may affect results of the testing, will be communicated with the customer.
- Additional testing requested by customer after testing has been completed and an original final toxicology report issued out, will result in a secondary toxicology final report with the watermark stating it is an Amended Report.

Specimen Return

1. Specimens are retained in the laboratory’s evidence refrigerator for a minimum of 8 weeks after the final report is issued. Should an agency require additional testing, the request should be made during this time period. Requests after specimens have been returned to the agency need additional coordination and time to process.
2. After the 8 week storage period, specimens are repackaged and returned to the submitting agency.

Authorization:

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QA Manager Approval	Signature: <u></u>	Date: <u>03/20/2024</u>
Lab Director Approval	Signature: <u></u>	Date: <u>3/20/24</u>

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Appendix A: Quick Reference Guide for in-person Delivery of Specimens

NOTE: these photos are for example only. Please see above for most current mailing/kit information

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Instructions for Delivering Blood Specimens to the Toxicology Laboratory

- Always collect blood for cases involving driving performance and/or impairment.
- Only collect urine for cases on which the presence of a substance is sufficient (for example: underage drinking cases).
- For any questions, call (801) 965-2451.



Collect 2 samples in 10mL glass grey top tubes. Label each tube with suspect's First and Last Name and your agency case #. Use evidence tape to seal tubes. Initial and date the seals.



Insert tubes in an envelope. We recommend including an absorbent pad and using a padded envelope. Absorbent pad must be of sufficient size to absorb any leakage of tube contents. Use evidence tape to seal the envelope. Initial and date the seal.

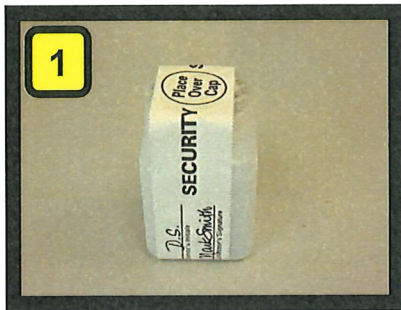
Enter all information on the current Toxicology Request Form. Ensure that both the tubes and the form have exactly the same suspect name and agency case number. The current form is available online at: www.health.utah.gov/lab/toxicology

Deliver the samples to the laboratory and collect chain of custody sample receipt for all samples.

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Instructions for Delivering Urine Specimens to the Toxicology Laboratory

- Always collect blood for cases involving driving performance and/or impairment.
- Only collect urine for cases on which the presence of a substance is sufficient (for example: underage drinking cases).
- For any questions, call (801) 965-2451.



Collect 30mL of urine and tightly cap the container. Label each tube with suspect's First and Last Name and your agency case #. Use evidence tape to seal container. Initial and date the seals.



Insert urine container and absorbent pad into secondary container. Absorbent pad must be of sufficient size to absorb any leakage of container contents. Seal the secondary container. Initial and date the seal.

Enter all information on the current Toxicology Request Form. Ensure that both the tubes and the form have exactly the same suspect name and agency case number. The current form is available online at: www.health.utah.gov/lab/toxicology

Deliver the samples to the laboratory and collect chain of custody sample receipt for each sample. For questions on this procedure, call: (801) 965-2451

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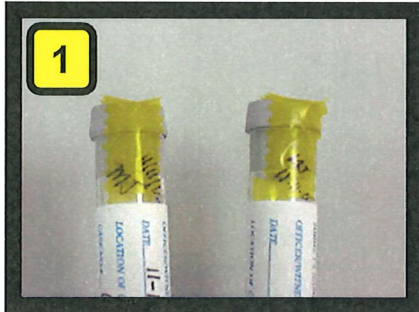
Appendix B: Quick Reference Guide for Mailing Specimens

NOTE: these photos are for example only. Please see above for most current mailing/kit information

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Instructions for Mailing Blood Specimens to the Toxicology Laboratory

- Always collect blood for cases involving driving performance and/or impairment.
- Only collect urine for cases on which the presence of a substance is sufficient (for example: underage drinking cases, sexual assault cases).
- For any questions, call (801) 965-2451.



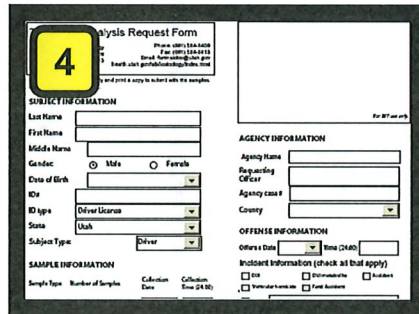
Collect 2 samples in 10mL glass grey top tubes. Label each tube with suspect's First and Last Name and your agency case #. Use evidence tape to seal tubes. Initial and date the seals.



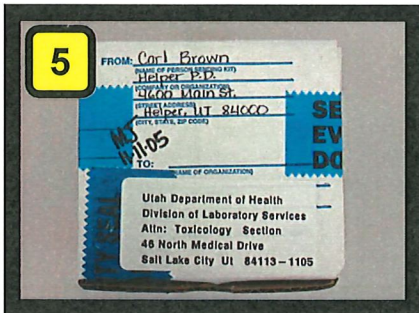
Insert tubes and absorbent pad in a secondary container. Absorbent pad must be of sufficient size to absorb any leakage of tube contents. Secondary container must be crushproof to 17psi.



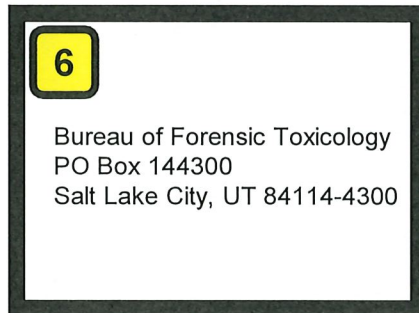
Cap the secondary container. Use evidence tape to seal the container. Initial and date the seals.



Enter all information on the Toxicology Request Form. Ensure that both the tubes and the form have exactly the same suspect name and agency case number.



Insert secondary container and request form into shipping box. Use evidence tape to seal the box. Initial and date the seals.

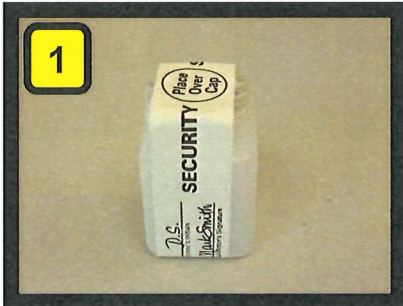


Ensure mailing address and return address are on the box and send to the laboratory.

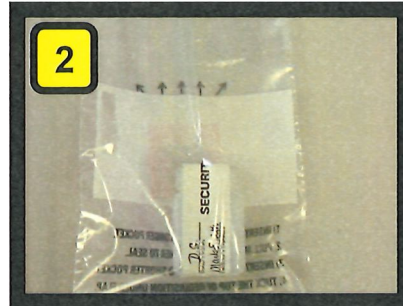
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Instructions for Mailing Urine Specimens to the Toxicology Laboratory

- Always collect blood for cases involving driving performance and/or impairment.
- Only collect urine for cases on which the presence of a substance is sufficient (for example: underage drinking cases, sexual assault cases).
- For any questions, call (801) 965-2451.



Collect 30mL of urine and tightly cap the container. Label each tube with suspect's First and Last Name and your agency case #. Use evidence tape to seal container. Initial and date the seals.



Insert urine container and absorbent pad into secondary container. Absorbent pad must be of sufficient size to absorb any leakage of container contents. Seal the secondary container. Initial and date the seal.

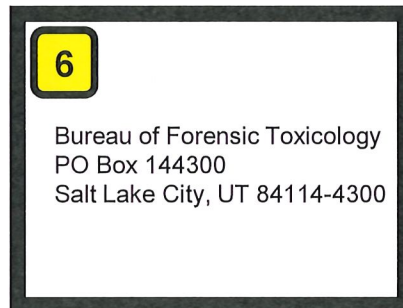
Enter all information on the Toxicology Request Form. Ensure that both the tubes and the form have exactly the same suspect name and agency case number.



Insert secondary container and request form into shipping box.



Use evidence tape to seal the box. Initial and date the seals.



Ensure mailing address and return address are on the box and send to the laboratory.

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Appendix C: Testing Panels

Effective May 1, 2024, all law enforcement casework will automatically be tested for alcohol and a specific drug panel. An expanded drug panel is available upon specific request.

NOTE: This list is being routinely updated. Please contact the laboratory with any inquiries regarding our test menu.

[UFTL Testing Panel \(permission will be granted as appropriate\)](#)