

Amphetamines, Opiates, & Phencyclidine In Oral Fluid For GC/MS Analysis Using: 50 mg Clean Screen® DAU Extraction Column



UCT Part Numbers

ZSDAU005
Clean Screen® DAU
50 mg, 10 mL

Procedure:

1. Prepare Sample

- Add 100 - 500 µL of neat oral fluid sample to a clean tube.
- Add internal standard(s) and let sit for 10 minutes at room temperature.
- Add 800 µL of 100 mM phosphate buffer (pH= 6.0).
- Mix/vortex for 10 seconds. Sample pH should be 6.0 ± 0.5 .
- Adjust pH accordingly with 100 mM monobasic or dibasic sodium phosphate.

2. Condition Clean Screen® DAU Extraction Column

- 1 x 200 µL CH₃OH.
- 1 x 200 µL D.I. H₂O.
- 1 x 200 µL 100 mM phosphate buffer (pH= 6.0).

3. Apply Sample

- Do not exceed 1 mL/minute.

4. Wash Column

- 1 x 500 µL D.I. H₂O.
- 1 x 500 µL 100 mM acetic acid.
- 1 x 500 µL CH₃OH.
- Dry column (5 minutes at >10 inches Hg).

5. Elution

- 1 x 800 µL CH₂Cl₂/IPA/NH₄OH (70:26:4).
 - Do not exceed 1 mL/minute.
- Note:** Prepare elution solvent daily. Add IPA/NH₄OH, mix, then add CH₂Cl₂ (pH 11-12).

6. Dry Eluate

- For amphetamines and PCP, add 100 µL of 5% trifluoroacetic acid in methanol after 5 min. drying. (5 min drying removes ammonia, addition of acid ionizes volatile analytes preventing loss)
- Evaporate to full dryness at < 40°C under a stream of N₂.

7. Derivatize

For Amphetamines*:

- Add 50 µL PFPA (PFAA).
- Vortex. Overlay with N₂ and cap.
- React 20 minutes at 70°C.
- Evaporate to dryness at < 40°C.
- Reconstitute with 50 µL ethyl acetate.

For Opiates*:

- Add 200 µL of a 1:1 solution of propionic anhydride/pyridine.
- Make fresh daily.
- Vortex.
- React 60 minutes at 40°C.
- Evaporate to dryness at < 40°C.
- Reconstitute with 50 µL ethyl acetate.

8. Quantitate

- Inject 2 µL onto gas chromatograph.

*Alternate derivatizations may be used.
Phencyclidine does not derivatize.



UCT, LLC • 2731 Bartram Road • Bristol, PA 19007 800.385.3153 • 215.781.9255

www.unitedchem.com Email: methods@unitedchem.com

©UCT, LLC 2008 • All rights reserved

