



**COCAINE & BENZOYLECGONINE IN
ORAL FLUID FOR GC/MS ANALYSIS USING:
50 mg CLEAN SCREEN[®] DAU EXTRACTION COLUMN**
Part #: ZSDAU005

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[®] EXTRACTION COLUMN

1 x 200 μL CH_3OH .
1 x 200 μL D.I. H_2O .
1 x 200 μL 100 mM HCl.

3. APPLY SAMPLE

Do not exceed 1 mL/minute.

4. WASH COLUMN

1 x 500 μL D.I. H_2O .
1 x 500 μL 100 mM HCl acid.
1 x 500 μL $\text{CH}_3\text{OH}/\text{D.I. H}_2\text{O}$ (50:50).
Dry column (5 minutes at > 10 inches Hg).

5. ELUTION

1 x 800 μL $\text{CH}_2\text{Cl}_2/\text{IPA}/\text{NH}_4\text{OH}$ (70:26:4).
Do not exceed 1 mL/minute.

NOTE: Prepare elution solvent daily. Add IPA/ NH_4OH , mix, then add CH_2Cl_2 (pH 11-12).

6. CONCENTRATE ELUATE

Evaporate at $< 40^\circ\text{C}$ under a stream of N_2

7. DERIVATIZE*

Fluoroalkylate: Add 100 µL PFPA (PFAA) or HFIP.

Overlay with N₂ and cap.

React 20 minutes at 70°C.

Evaporate to dryness at < 40°C.

Reconstitute with 50 µL ethyl acetate.

TMS: Add 25 µL BSTFA (w. 1% TMCS) and
25 µL ethyl acetate.

Overlay with N₂ and cap.

Mix/vortex

React 30 minutes at 70°C.

Remove from heat and allow to cool.

NOTE: Do not evaporate BSTFA solution

8. QUANTITATE

Inject 2 µL onto gas chromatograph.

For MSD monitor the following ions:

<u>Analyte</u>	<u>Target (Quantitation) Ion</u>	<u>Qualifier Ions</u>	<u>Cerilliant #</u>
Cocaine	182	198, 303	C-008
*Cocaine-D3	185	201, 306	C-004
Benzoylecgonine-TMS	240	256, 361	B-007
*Benzoylecgonine-D8-TMS	243	259, 369	B-013

*Alternate derivatizations may be used.