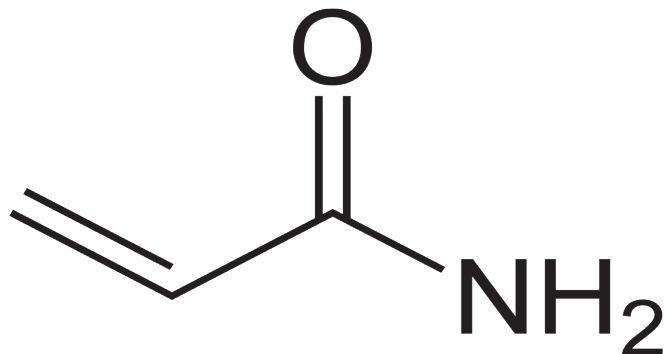


Optimized QuEChERS Method For Acrylamide Analysis*



UCT Part Numbers

ECMS4MSC550CT
Non-Buffered Extraction 50 mL
50/Pack 4000 mg MgSO₄
500 mg NaCl

CUMPS2CT
QuEChERS in 2 mL Centrifuge
Tube 150 mg MgSO₄, 50 mg PSA

Procedure:

1. Extraction

- Add 1.0 gram of sample to a 50 mL centrifuge tube.
- Add contents of **ECMS4MSC550CT** (4g MgSO₄ and 0.5g NaCl).
- Add 500 ng/g d3-acrylamide to the tube.
- Add 5 mL of hexane.
- Vortex for 1 minute.
- Add 10 mL of reagent water and 10 mL of acetonitrile.
- Shake vigorously for 1 minute.
- Centrifuge for 5 minutes at 3450 rcf.

2. Clean-Up

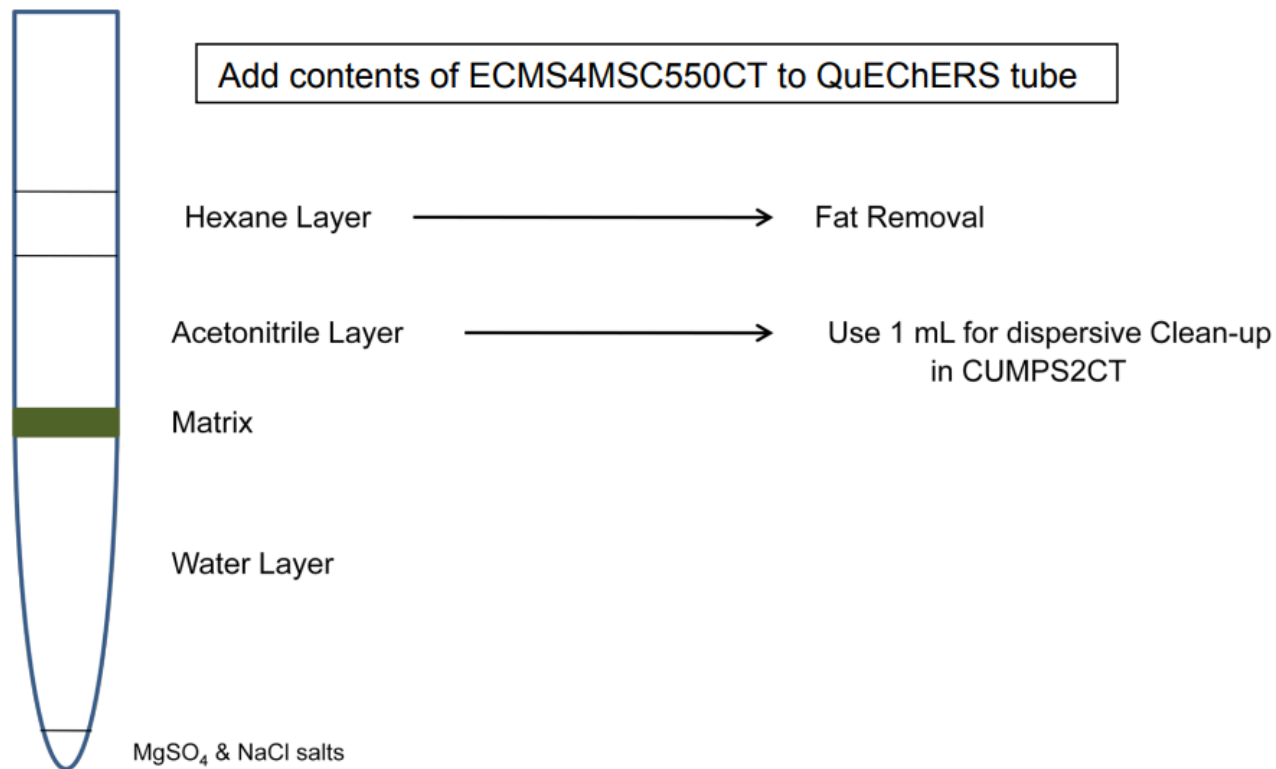
- Discard the hexane top layer
 - Add 1 mL of the acetonitrile layer to a **CUMPS2CT** tube (150 mg MgSO₄, 50 mg PSA)
 - Mix for 30 seconds.
 - Centrifuge at 3450 rcf for 1 minute.
 - Transfer liquid portion to an injection vial.
- Note:** Aspirate at < 3 inches Hg to prevent sorbent drying.

3. Analysis

- Inject 5-10 µL into an LC-MS/MS.



Acrylamide Extraction Step



*Adapted from Kate Mastovska, USDA-ARS

DCN-016201-175

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