

Analysis of PFAS in food*

Sample pretreatment (MN Appl. No. 306840)

- Weigh amount of sample and LC/MS grade water based on Table 1 and into an empty 50 mL centrifuge tube (REF 730223)
- Add 0.1 mL of internal standard solution (0.1 µg/mL each compound in methanol) and 0.1 mL of native standard solution (0.1 µg/mL each compound in methanol) for determining recovery rate
- Shake the mixture for 1 min
- Add 9.8 mL acetonitrile and 150 µL formic acid
- Shake the mixture for 1 min
- Add CHROMABOND® QuEChERS Mix XII (REF 730648)
- Shake the mixture for 1 min
- Centrifuge the mixture for 5 min at 4500 rpm at 5 °C
- Transfer 6 mL supernatant to a 15 mL centrifuge tube, which is prefilled with CHROMABOND® QuEChERS Mix L (REF 7300008)
- Shake for 1 min
- Centrifuge again for 5 min at 4500 rpm at 5 °C
- Supernatant is ready to be analyzed by LC-MS/MS (MN Appl. No. 129000)



Sample matrix	Amount of sample used (g)	Water added (mL)	CH ₃ CN added (mL)
Milk	5	5	10
Quark	1	5	10
Bread	5	15	10
Brussels sprouts	5	5	10
Spinach	5	5	10
Egg	5	5	10

Table 1: Sample preparation conditions based on food commodity type

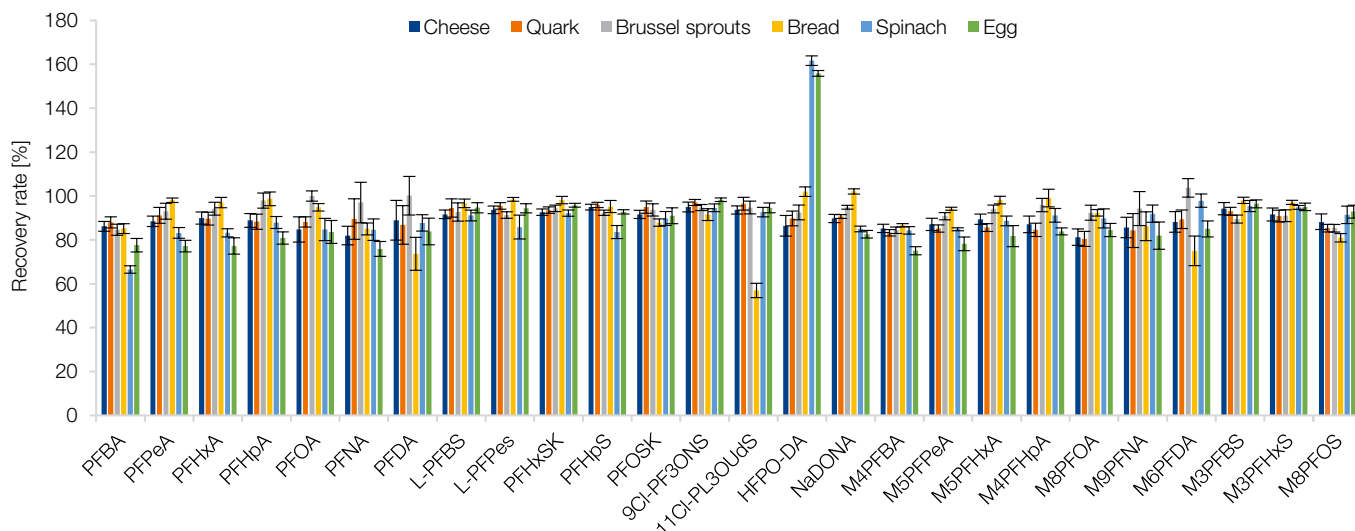


Figure 1: Recovery rates of PFAS

*According to FDA method C-010.02

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- Relative reduction of dry mass (related to dry mass of raw extract)
- Relative reduction of UV/VIS absorption (related to absorption of raw extract)

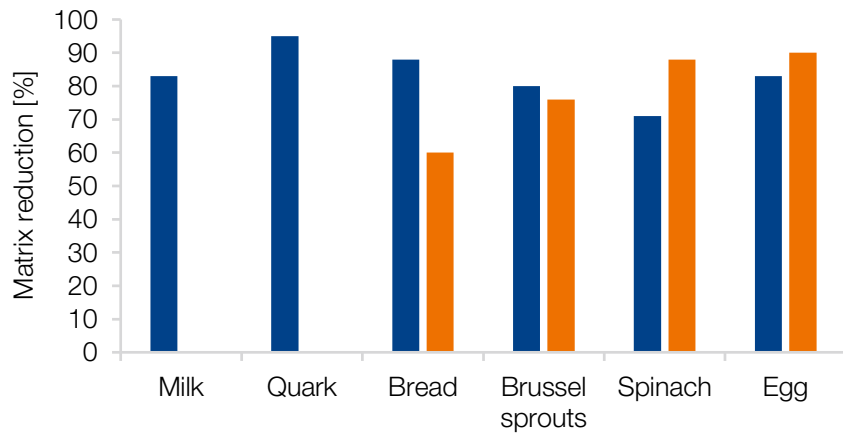


Figure 2: Relative matrix reduction of dry mass and UV-VIS absorption (colored extracts)



Stick format,
aluminum packet



Centrifuge tube,
2 mL



Centrifuge tube,
15 mL



Centrifuge tube,
50 mL

Ordering information

Good to know

Check out our QuEChERS mixes online!



Extraction mixes

Method	Mix No.	Content of mix	Volume	Quantity	REF
In aluminum packets (Sticks)					
EN 15662	Mix I	4000 mg MgSO ₄ , 1000 mg NaCl, 500 mg Na ₂ H citrate x 1.5 H ₂ O, 1000 mg Na ₃ citrate x 2 H ₂ O	Individually weighed in aluminum packets (Sticks)	50	730970.3
EN 15662	Mix I	4000 mg MgSO ₄ , 1000 mg NaCl, 500 mg Na ₂ H citrate x 1.5 H ₂ O, 1000 mg Na ₃ citrate x 2 H ₂ O	Individually weighed in aluminum packet (Sticks), including 50 mL empty centrifuge tubes	50	730970.3T
AOAC 2007.01	Mix II	6000 mg MgSO ₄ , 1500 mg NaOAc	Individually weighed aluminum packets (Sticks), including 50 mL empty centrifuge tubes	50	730971.3T
AOAC 2007.01	Mix II	6000 mg MgSO ₄ , 1500 mg NaOAc	Individually weighed in aluminum packets (Sticks)	50	730971.3
Original	Mix XII	4000 mg MgSO ₄ , 1000 mg NaCl	Individually weighed in aluminum packets (Sticks)	50	730648.3
Original	Mix XII	4000 mg MgSO ₄ , 1000 mg NaCl	Individually weighed aluminum packets (Sticks), including 50 mL empty centrifuge tubes	50	730648.3T
Original	Mix XII	6000 mg MgSO ₄ , 1500 mg NaCl	Individually weighed in aluminum packets (Sticks)	50	730989.3
Original	Mix XII	6000 mg MgSO ₄ , 1500 mg NaCl	Individually weighed aluminum packets (Sticks), including 50 mL empty centrifuges tubes	50	730989.3T
15 mL centrifuge tube (PP) with screw cap (PE)					
EN 15662	Mix I	4000 mg MgSO ₄ , 1000 mg NaCl, 500 mg Na ₂ H citrate x 1.5 H ₂ O, 1000 mg Na ₃ citrate x H ₂ O	15 mL	50	730970
EN 15662	Mix I	4000 mg MgSO ₄ , 1000 mg NaCl, 500 mg Na ₂ H citrate x 1.5 H ₂ O, 1000 mg Na ₃ citrate x 2 H ₂ O	15 mL	100	730970.100
EN 15662	Mix I	8000 mg MgSO ₄ , 2000 mg NaCl, 1000 mg Na ₂ H citrate x 1.5 H ₂ O, 2000 mg Na ₃ citrate x 2 H ₂ O	15 mL	100	730436.100
AOAC 2007.01	Mix II	1200 mg MgSO ₄ , 300 mg NaOAc	15 mL	50	730964
AOAC 2007.01	Mix II	6000 mg MgSO ₄ , 1500 mg NaOAc	15 mL	50	730971
Original	Mix XII	4000 mg MgSO ₄ , 1000 mg NaCl	15 mL	50	730648
Original	Mix XII	1000 mg MgSO ₄ , 250 mg NaCl	15 mL	50	730984
50 mL centrifuge tube (PP) with screw cap (PE)					
EN 15662	Mix I	4000 mg MgSO ₄ , 1000 mg NaCl, 500 mg Na ₂ H citrate x 1.5 H ₂ O, 1000 mg Na ₃ citrate x 2 H ₂ O	50 mL	50	730970.1
AOAC 2007.01	Mix II	4000 mg MgSO ₄ , 1000 mg NaOAc	50 mL	50	730694.1
Original	Mix XII	4000 mg MgSO ₄ , 1000 mg NaCl	50 mL	50	730648.1

Ordering information

Clean-up mixes

Method	Mix No.	Content of mix	Volume	Quantity	REF
2 mL centrifuge tube (PP) with snap cap					
EN 15662	Mix III	150 mg MgSO ₄ , 25 mg CHROMABOND® Diamino	2 mL	50	730646.2
EN 15662	Mix IV	150 mg MgSO ₄ , 25 mg CHROMABOND® Diamino, 2.5 mg CHROMABOND® Carbon	2 mL	50	730850.2
EN 15662	Mix V	150 mg MgSO ₄ , 25 mg CHROMABOND® Diamino, 7.5 mg CHROMABOND® Carbon	2 mL	50	730358.2
EN 15662	Mix VI	150 mg MgSO ₄ , 25 mg CHROMABOND® Diamino, 25 mg CHROMABOND® C ₁₈ ec	2 mL	50	730858.2
EN 15662	Mix XI	150 mg MgSO ₄ , 50 mg CHROMABOND® C ₁₈ ec	2 mL	50	730983.2
EN 15662	Mix XV	150 mg MgSO ₄ , 100 mg CHROMABOND® C ₁₈ ec	2 mL	50	730987.2
AOAC 2007.01	Mix XVII	150 mg MgSO ₄ , 50 mg CHROMABOND® Diamino, 50 mg CHROMABOND® Carbon	2 mL	50	730996.2
AOAC 2007.01	Mix XIX	150 mg MgSO ₄ , 50 mg CHROMABOND® Diamino, 50 mg CHROMABOND® C ₁₈ ec	2 mL	50	730657.2
AOAC 2007.01, EN 15662	Mix XX	150 mg MgSO ₄ , 50 mg CHROMABOND® Diamino	2 mL	50	730670.2
AOAC 2007.01	Mix XLVII	150 mg MgSO ₄ , 50 mg CHROMABOND® Diamino, 50 mg CHROMABOND® Carbon, 50 mg CHROMABOND® C ₁₈ ec	2 mL	50	730843.2
15 mL centrifuge tube (PP) with screw cap (PE)					
EN 15662	Mix III	600 mg MgSO ₄ , 100 mg CHROMABOND® Diamino	15 mL	50	730980
EN 15662	Mix III	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino	15 mL	50	730972
EN 15662	Mix III	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino	15 mL	100	730972.100
EN 15662	Mix III	450 mg MgSO ₄ , 75 mg CHROMABOND® Diamino	15 mL	50	730992
EN 15662	Mix III	1200 mg MgSO ₄ , 200 mg CHROMABOND® Diamino	15 mL	100	730650.100
EN 15662	Mix IV	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino, 15 mg CHROMABOND® Carbon	15 mL	50	730973
EN 15662	Mix V	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino, 45 mg CHROMABOND® Carbon	15 mL	50	730975
EN 15662	Mix V	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino, 45 mg CHROMABOND® Carbon	15 mL	100	730975.100
EN 15662	Mix VI	450 mg MgSO ₄ , 75 mg CHROMABOND® Diamino, 75 mg CHROMABOND® C ₁₈ ec	15 mL	50	730155
EN 15662	Mix VI	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino, 150 mg CHROMABOND® C ₁₈ ec	15 mL	50	730974
EN 15662	Mix VI	900 mg MgSO ₄ , 150 mg CHROMABOND® Diamino, 150 mg CHROMABOND® C ₁₈ ec	15 mL	100	730974.100
AOAC 2007.01	Mix XVII	1200 mg MgSO ₄ , 400 mg CHROMABOND® Diamino, 400 mg CHROMABOND® Carbon	15 mL	50	730842

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Ordering information

AOAC 2007.01	Mix XIX	1200 mg MgSO ₄ , 400 mg CHROMABOND® Diamino, 400 mg CHROMABOND® C ₁₈ ec	15 mL	50 730669
AOAC 2007.01	Mix XIX	150 mg MgSO ₄ , 50 mg CHROMABOND® Diamino, 50 mg CHROMABOND® C ₁₈ ec	15 mL	50 730657
AOAC 2007.01, EN 15662	Mix XX	1200 mg MgSO ₄ , 400 mg CHROMABOND® Diamino	15 mL	50 730658
	Mix XXXVI	180 mg MgSO ₄ , 40 mg CHROMABOND® Diamino	15 mL	50 730963
AOAC 2007.01	Mix XLVII	1200 mg MgSO ₄ , 400 mg CHROMABOND® Diamino, 400 mg CHROMABOND® Carbon, 400 mg CHROMABOND® C ₁₈ ec	15 mL	50 730845
	Mix XLIX	1200 mg MgSO ₄ , 400 mg CHROMABOND® Diamino, 45 mg CHROMABOND® Carbon, 400 mg CHROMABOND® C ₁₈ ec	15 mL	50 7300000
	Mix M1	Special clean-up-mix for mycotoxin analysis, 1300 mg special sorbent blend	15 mL	50 730779



Presented by

www.mn-net.com

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Management System
EN ISO 13485:2016
ISO 9001:2015

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