

Analytical Results for PFAS in 2022 Seafood Survey (Parts Per Trillion)

Note: Eighty-one samples purchased at retail were analyzed for 20 types of PFAS in 2021 - 2022. Samples were analyzed to better understand the occurrence of PFAS in seafood available in the general food supply. Of the 60 samples with at least one type of PFAS detected, the FDA determined the levels of PFOA in clams were likely a health concern and the FDA took appropriate action.

Measured Concentrations in parts per trillion (ppt=ng/kg)																								
Tuna Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUdS
tuna 1-1	Lemon pepper tuna	W	Ecuador	Foil pouch	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	36	47	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tuna 1-2	Chunk light tuna in water	W	Thailand	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	36	47	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tuna 1-3	Chunk light tuna in water	W	Thailand	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	48	36	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tuna 1-4	Chunk white albacore tuna in water	W	NI	Can	<MDL	<MDL	<MDL	<MDL	<MDL	77	151	888	137	250	50	<MDL	<MDL	<MDL	<MDL	195	<MDL	<MDL	<MDL	<MDL
tuna 1-5	Solid white albacore tuna in extra virgin olive oil	W	NI	Can	<MDL	<MDL	<MDL	<MDL	<MDL	47	97	70	58	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	63	<MDL	<MDL	<MDL	<MDL
tuna 1-6	Chunk light tuna in water	W	Thailand	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	89	85	71	<MDL	31	<MDL	<MDL	<MDL	<MDL	76	<MDL	<MDL	<MDL	<MDL
tuna 1-7	Solid white albacore tuna in water	W	Thailand	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	79	39	73	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tuna 1-8	Chunk white albacore tuna in water	W	Thailand	Can	<MDL	<MDL	<MDL	<MDL	<MDL	44	90	103	67	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	50	<MDL	<MDL	<MDL	<MDL
tuna 1-9	Solid white albacore tuna in water	W	NI	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	90	52	74	<MDL	32	<MDL	<MDL	<MDL	<MDL	50	<MDL	<MDL	<MDL	<MDL
tuna 1-10	Chunk light tuna in water	W	NI	Can	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	72	93	50	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11

Measured Concentrations in parts per trillion (ppt=ng/kg)

Salmon Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9Cl-PF3ONS	11Cl-PF3OUdS
salmon 1-1	Atlantic salmon	A	Chile	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-2	Atlantic salmon	A	Chile	HDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	28	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-3	Atlantic salmon	A	Chile	HDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	42	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-4	Atlantic salmon	A	Norway	PET	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	26	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-5	Atlantic salmon	A	Canada	Expanded PS	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-6	Atlantic salmon	A	Norway	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	43	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-7	Atlantic salmon	A	Chile	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	45	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-8	Atlantic salmon	A	Norway	PE/PVA	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	20	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-9	Atlantic salmon	A	Norway	Paper	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	33	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
salmon 1-10	Atlantic salmon	A	Canada	Expanded PS	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	22	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11

Measured Concentrations in parts per trillion (ppt=ng/kg)

Tilapia Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUdS
tilapia 1-1	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-2	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	22	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-3	Tilapia fillets	A	Honduras	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-4	Tilapia fillets	A	Ni	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-5	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-6	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-7	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	30	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	65	<MDL	<MDL	<MDL	<MDL
tilapia 1-8	Tilapia fillets	A	Ni	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-9	Tilapia fillets	NI	NI	Expanded PS	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
tilapia 1-10	Tilapia fillets	A	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	50	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11

Measured Concentrations in parts per trillion (ppt=ng/kg)

Crab Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUdS
crab 1-1 **	Claw meat	W	Indonesia	Can	<MDL	<MDL	<MDL	<MDL	510	350	73	265	95	835	99	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-2 **	Crab claw	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	319	113	<MDL	80	52	102	<MDL	<MDL	<MDL	112	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-3 **	Crab jumbo	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	286	256	70	73	59	77	<MDL	29	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-4 **	Crab claw	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	225	112	<MDL	122	42	140	<MDL	<MDL	<MDL	<MDL	<MDL	93	<MDL	<MDL	<MDL	<MDL
crab 1-5 **	Special claw blend	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	204	100	105	69	115	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-6 **	Blue crab claw fingers	W	Mexico	Can	<MDL	<MDL	<MDL	<MDL	90	75	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-7 *	Crab lump	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	320	135	70	125	66	303	74	<MDL	<MDL	<MDL	<MDL	134	<MDL	<MDL	<MDL	<MDL
crab 1-8 *	Blue crab cocktail claws	W	Mexico	Can	<MDL	<MDL	<MDL	<MDL	172	54	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
crab 1-9 *	Blue swimming crabmeat lump	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	355	174	68	133	58	272	<MDL	<MDL	<MDL	<MDL	<MDL	68	<MDL	<MDL	<MDL	<MDL
crab 1-10 *	Blue swimming crabmeat jumbo lump	W	Indonesia	PP	<MDL	<MDL	<MDL	<MDL	449	339	<MDL	82	<MDL	117	<MDL	<MDL	<MDL	<MDL	<MDL	75	<MDL	<MDL	<MDL	<MDL
crab 1-11 *	Crab meat special	W	Indonesia	Can	<MDL	<MDL	<MDL	234	380	106	80	<MDL	62	<MDL	<MDL	34	<MDL	242	<MDL	388	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1 *					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11
MDL (ng/kg) Instrument 2 **					345	207	132	93	68	39	62	53	38	74	66	13	33	17	25	45	50	16	12	17

Measured Concentrations in parts per trillion (ppt=ng/kg)

Shrimp Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9Cl-PF3ONS	11Cl-PF3OUdS
shrimp 1-1	26-30 count shrimp	A	Indonesia	HDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-2	26-30 count shrimp	A	NI	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-3	41-50 count shrimp	A	India	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-4	30-40 count shrimp	A	India	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-5	16-20 count shrimp	A	Indonesia	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-6	21-25 count shrimp	A	India	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-7	41-50 count shrimp	A	Indonesia	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-8	31-40 count shrimp	A	Indonesia	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-9	21-25 count shrimp	A	Indonesia	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	27	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
shrimp 1-10	16-20 count shrimp	A	Indonesia	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11

Measured Concentrations in parts per trillion (ppt=ng/kg)

Cod Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDoA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUdS
cod 1-1 *	Cod	W	China	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	80	89	172	119	124	77	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-2 *	Cod loin	NI	NI	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	45	<MDL	55	73	<MDL	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-3 *	Fillets	W	Iceland	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	60	65	72	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-4 *	Pacific cod	W	China	LDPE	< MDL	< MDL	< MDL	< MDL	105	103	99	332	84	140	31	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-5 *	Cod	W	China	LDPE	< MDL	< MDL	< MDL	< MDL	102	50	83	134	120	74	35	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-6 **	Pacific cod	W	China* (United States)	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	134	55	95	34	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-7 **	Pacific cod	W	China	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-8 **	Atlantic cod	NI	Iceland	not available	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	142	<MDL	247	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-9 **	Atlantic cod	W	Norway	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	100	62	<MDL	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
cod 1-10 **	Cod	W	China* (United States)	LDPE	< MDL	< MDL	< MDL	< MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	< MDL	< MDL	< MDL	< MDL	<MDL	< MDL	< MDL	< MDL	< MDL
MDL (ng/kg) Instrument 1 *					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11
MDL (ng/kg) Instrument 2 **					345	207	132	93	68	39	62	53	38	74	66	13	33	17	25	45	50	16	12	17

Measured Concentrations in parts per trillion (ppt=ng/kg)

Pollock Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUDA	PFDoA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUds
pollock 1-1	Breaded fillets	W	NI	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	38	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-2	Fish sticks	W	NI	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	28	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-3	Fish sticks	W	Germany	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-4	Filletts	W	United States	Paper	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	50	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-5	Panko breaded fish sticks	W	United States	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	29	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-6	Fish sticks	W	United States	PP	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	59	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-7	Fish sticks	W	United States	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	64	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-8	Beer battered fillets	W	United States	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	57	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-9	Salted pollock	W	China	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	106	130	114	61	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
pollock 1-10	Filletts	W	China* (United States)	LDPE	<MDL	<MDL	<MDL	<MDL	<MDL	100	147	284	97	106	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 2					345	207	132	93	68	39	62	53	38	74	66	13	33	17	25	45	50	16	12	17

Measured Concentrations in parts per trillion (ppt=ng/kg)

Clam Sample	Item Description	Wild-caught (W) or Aquaculture (A)	Country of Origin	Packaging	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA	PFDA	PFUdA	PFDaA	PFTrDA	PFTeDA	PFBS	PFPeS	PFHxS	PFHpS	PFOS	HFPO-DA	NaDONA	9CI-PF3ONS	11CI-PF3OUdS
clam 1-1	Smoked baby clams in soybean oil	NI	China	Can	<MDL	<MDL	<MDL	57	4832	463	<MDL	91	<MDL	112	44	<MDL	<MDL	79	<MDL	200	<MDL	<MDL	<MDL	<MDL
clam 1-2	Smoked baby clams in cottonseed oil	A	China	Can	<MDL	<MDL	67	<MDL	2897	333	109	96	90	94	95	<MDL	<MDL	51	<MDL	194	<MDL	<MDL	<MDL	<MDL
clam 1-3	Smoked clams in cottonseed oil	NI	China	Can	<MDL	<MDL	55	49	4824	548	122	108	83	128	139	<MDL	<MDL	90	<MDL	263	<MDL	<MDL	<MDL	<MDL
clam 1-4	Smoked baby clams in olive oil	NI	China	Can	<MDL	<MDL	182	263	19822	603	146	139	116	173	166	68	<MDL	605	<MDL	401	<MDL	<MDL	<MDL	<MDL
clam 1-5	Smoked clams in cottonseed oil	NI	China	Can	<MDL	<MDL	80	226	20133	484	168	147	93	110	96	43	<MDL	128	<MDL	1235	<MDL	<MDL	<MDL	<MDL
clam 1-6	Smoked baby clams in soybean oil	NI	China	Can	<MDL	<MDL	81	66	4307	352	108	85	85	104	104	<MDL	<MDL	67	<MDL	194	<MDL	<MDL	<MDL	<MDL
clam 1-7	Whole baby clams in water	NI	China	Can	<MDL	<MDL	112	50	5497	633	138	163	81	167	87	<MDL	<MDL	97	<MDL	349	<MDL	<MDL	<MDL	<MDL
clam 1-8	Chopped baby clams in water	NI	China	Can	<MDL	<MDL	97	61	6714	796	193	254	105	173	101	<MDL	<MDL	107	<MDL	532	<MDL	<MDL	<MDL	<MDL
clam 1-9	Whole baby clams in water	W	China	Can	<MDL	<MDL	114	41	6150	785	211	260	130	151	111	<MDL	<MDL	73	<MDL	558	<MDL	<MDL	<MDL	<MDL
clam 1-10	Baby clams in water	NI	China	Can	<MDL	<MDL	204	96	8165	692	111	111	60	154	69	24	<MDL	157	<MDL	303	<MDL	<MDL	<MDL	<MDL
MDL (ng/kg) Instrument 1					345	207	50	41	90	30	67	30	16	68	30	14	20	20	32	39	22	13	15	11

Legend

Acronym	Name	CAS	Formula	Nominal Mass
PFOA	Perfluorooctanoic acid	335-67-1	C ₈ HF ₁₅ O ₂	414
PFOS	Perfluorooctanesulfonic acid	1763-23-1	C ₈ HF ₁₇ O ₃ S	500
PFBA	Perfluorobutanoate	375-22-4	C ₄ F ₇ O ₂	214
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	C ₇ HF ₁₅ O ₃ S	450
PFPeA	Perfluoropentanoic acid	2706-90-3	C ₅ HF ₉ O ₂	264
PFHxA	Perfluorohexanoic acid	307-24-4	C ₆ HF ₁₁ O ₂	314
PFHxS	Perfluorohexanesulfonic acid	355-46-4	C ₆ HF ₁₃ O ₃ S	400
PFHpA	Perfluoroheptanoic acid	375-85-9	C ₇ HF ₁₃ O ₂	364
PFBS	Perfluorobutanesulfonic acid	375-73-5	C ₄ HF ₉ O ₃ S	300
PFPeS	1,1,2,2,3,3,4,4,5,5,5-Undecafluoro-1-pentanesulfonic acid	2706-91-4	C ₅ HF ₁₁ O ₃ S	350
NaDONA	Sodium dodecafluoro-3H-4, 8-dioxananoate	958445-44-8	C ₇ H ₅ F ₁₂ NO ₄	395
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	C ₆ HF ₁₁ O ₃	330
PFDA	Perfluorodecanoic acid	335-76-2	C ₁₀ HF ₁₉ O ₂	514
PFNA	Perfluorononanoic acid	375-95-1	C ₉ HF ₁₇ O ₂	464
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	C ₁₀ HClF ₂₀ O ₄ S	632
9Cl-PF3ONs	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	73606-19-6	C ₈ ClF ₁₆ KO ₄ S	570
PFUdA	Perfluoroundecanoic acid	2058-94-8	C ₁₁ HF ₂₁ O ₂	564
PFDoA	Perfluorododecanoic acid	206-203-2	C ₁₂ HF ₂₃ O ₂	614
PFTTrDA	Perfluorotridecanoic acid	276-745-2	C ₁₃ HF ₂₅ O ₂	664
PFTeDA	Perfluorotetradecanoic acid	376-06-7	C ₁₄ HF ₂₇ O ₂	714

CAS = Chemical Abstract Service Number

MDL = Method Detection Limit. Method Detection Limit is defined as the minimum concentration of a substance that can be

NI = Not indicated on the label

HDPE = High-density polyethylene

LDPE = Low-density polyethylene

PS = Polystyrene

PE = Polyethylene

PET = Polyethylene terephthalate

PVA = Polyvinyl alcohol

PP = Polypropylene

*Indicates the country where the product was processed; however, the label indicated a different country of harvest

MDL values were determined for two liquid chromatography triple quadrupole mass spectrometry (LC-MS/MS)

instruments (Instrument 1 - * and Instrument 2 -**). MDL values are determined by the instrument used for the sample analysis.

MDL values for PFBA and PFPeA were determined using high resolution mass spectrometer (HRMS) instrumentation.

These tables are part of a published article. For the full article, please see:

[Young, W.; Wiggins, S.; Limm, W.; Fisher, C.M.; DeJagger, L. Genualdi, S. Analysis of Per- and Poly\(fluoroalkyl\) Substances \(PFASs\) in Highly Consumed Seafood Products from U.S. Markets. J. Agric. Food Chem. 2022, 70, 42, 13545–13553.](#)