

SUPPLEMENTAL FILE C: PEER-REVIEWED LITERATURE SEARCH AND SCREENING

Per- and Polyfluoroalkyl Substances (PFAS): Next Steps for Hazard, Exposure, and Risk Analyses
(CPSC Contract Number 61320622A0005, CPSC Order Number 61320623F2025)

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1. Peer-Reviewed Literature Search Strategy

1.1. Search Background, Resources, or Methods

Chemical search terms including CASRN and synonyms were retrieved from [ChemIDplus](#), [EPA CompTox Chemicals Dashboard](#) (good & valid), and reviewed by subject matter experts. The final search strategies are available in Section 1.3.1.

Exposure, consumer product, dose response, toxicity reference value (TRV), and hazard term sets were developed using previous experience on searches of these topics and in discussion with subject matter experts from ICF and CPSC. The final search strategies are available in Sections 1.3.2 to 1.3.6.

1.2. Search Summary

Table 1 presents the results of the literature searches.

Table 1. Search Summary with Numbers of References Retrieved.

Search Date	Search Description	PubMed	Web of Science	Total Unique References per Chemical
9/19/2024	6:2 FTOH AND Exposure Date limit: 2019–2024	38	41	105
9/19/2024	6:2 FTOH AND Consumer Products Date limit: 2004–2024	36	55	
9/23/2024	6:2 FTOH AND (Hazard OR TRV OR Dose–Response) Date limit: 2004–2024	36	35	
9/19/2024	8:2 FTOH AND Exposure Date limit: 2019–2024	30	49	160
9/19/2024	8:2 FTOH AND Consumer Products Date limit: 2004–2024	55	89	

Search Date	Search Description	PubMed	Web of Science	Total Unique References per Chemical
9/23/2024	8:2 FTOH AND (Hazard OR TRV OR Dose-Response) Date limit: 2004-2024	49	66	
9/20/2024	PFOSA AND Exposure Date limit: 2019-2024	101	110	288
9/20/2024	PFOSA AND Consumer Products Date limit: 2004-2024	82	122	
9/23/2024	PFOSA AND (Hazard OR TRV OR Dose-Response) Date limit: 2004-2024	116	124	
9/19/2024	PFBA AND Exposure Date limit: 2021-2024	267	275	494
9/19/2024	PFBA AND Consumer Products Date limit: 2004-2024	154	224	
9/23/2024	PFBA AND (Hazard OR TRV OR Dose-Response) Date limit: 03/01/2022-2024	124	115	
9/19/2024	PFHpA AND Exposure Date limit: 2021-2024	161	161	337
9/19/2024	PFHpA AND Consumer Products Date limit: 2004-2024	90	137	
9/23/2024	PFHpA AND (Hazard OR TRV OR Dose-Response) Date limit: 2004-2024	151	133	
9/19/2024	PFHxA AND Exposure Date limit: 2021-2024	216	235	346
9/19/2024	PFHxA AND Consumer Products Date limit: 2004-2024	126	207	
9/23/2024	PFHxA AND (Hazard OR TRV OR Dose-Response) Date limit: 03/01/2021-2024	128	128	
9/19/2024	PFBS AND Exposure Date limit: 2021-2024	290	297	617
9/19/2024	PFBS AND Consumer Products Date limit: 2004-2024	125	217	
9/23/2024	PFBS AND (Hazard OR TRV OR Dose-Response) Date limit: 05/01/2020-2024	211	472	
9/19/2024	DFE AND Exposure Date limit: 2019-2024	41	51	249
9/19/2024	DFE AND Consumer Products Date limit: 2004-2024	47	119	
9/23/2024	DFE AND (Hazard OR TRV OR Dose-Response) Date limit: 2004-2024	83	37	
9/19/2024	TFE AND Exposure Date limit: 2019-2024	19	76	500

Search Date	Search Description	PubMed	Web of Science	Total Unique References per Chemical
9/19/2024	TFE AND Consumer Products Date limit: 2004-2024	60	387	
9/23/2024	TFE AND (Hazard OR TRV OR Dose-Response) Date limit: 2004-2024	33	65	
9/23/2024	APFO AND Exposure Date limit: 2021-2024	538	46	908
9/23/2024	APFO AND Consumer Products Date limit: 2004-2024	364	105	
OVERALL TOTAL UNIQUE REFERENCES				3,241

1.3. Search Strategies

1.3.1. Chemical Search Strategies

Table 2. PubMed Chemical Search Terms.

Chemical	Chemical Terms Search Strategy for PubMed
647-42-7	<p>("2-(Perfluorohexyl)ethanol" OR "2-(Perfluorohexyl)ethyl alcohol" OR "FtOH 6:2" OR "6:2 FTOH" OR "Fluorotelomer alcohol 6:2" OR "6:2 Fluorotelomer alcohol")</p> <p>Not recognized in PubMed: "1,1,2,2-Tetrahydroperfluorooctan-1-ol", "1,1,2,2-Tetrahydroperfluorooctanol", "1,1,2,2-Tetrahydrotridecafluorooctanol", "1H,1H,2H,2H-Perfluoro-1-octanol", "1H,1H,2H,2H-Perfluorooctan-1-ol", "1H,1H,2H,2H-Perfluorooctanol", "1H,1H,2H,2H-Tetrahydroperfluoro-1-octanol", "1H,1H,2H,2H-Tridecafluoro-1-octanol", "1H,1H,2H,2H-Tridecafluoro-n-octanol", "1H,1H,2H,2H-Tridecafluorooctanol", "1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-", "2-(Tridecafluorohexyl)ethanol", "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol", "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol", "3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctane-1-ol", "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctanol", "647-42-7", "Capstone 62AL", "Cheminox FA 6", "Fluowet EA 600", "Foralkyl EOH 6", "Perfluorohexylethanol", "TEOH 6", "6:2FTOH"</p>
678-39-7	<p>("1,1,2,2-Tetrahydroheptadecafluorodecanol" OR "1H,1H,2H,2H-Perfluorodecanol" OR "8-2 Telomer B alcohol" OR "A 1820" OR "C 1820" OR "Fluorotelomer alcohol 8:2" OR "8:2 FTOH" OR "8:2 Fluorotelomer alcohol")</p> <p>Not recognized in PubMed: "1,1,2,2-Tetrahydroperfluoro-1-decanol", "1,1,2,2-Tetrahydroperfluorodecan-1-ol", "1,1,2,2-Tetrahydroperfluorodecanol", "1,1,2,2-Tetrahydroperfluorodecyl alcohol", "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-", "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluoro-", "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-", "1H,1H,2H,2H-Heptadecafluoro-1-decanol", "1H,1H,2H,2H-Perfluorodecan-1-ol", "1H,1H,2H,2H-Tetrahydroperfluoro-1-decanol", "2-(Heptadecafluorooctyl)ethanol", "2-(Perfluorooctyl)ethanol", "2-Perfluorooctyl ethanol (8:2)", "2-(Perfluorooctyl)ethyl alcohol", "3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecan-1-ol", "678-39-7", "beta-(Heptadecafluorooctyl)ethanol", "Daikin A 1820", "Fluowet EA 800", "FtOH 8:2", "(Perfluorooctyl)ethanol", "PFA 8", "8:2FTOH"</p>

754-91-6	<p>("754-91-6"[rn] OR "Perfluoro-1-octanesulfonamide" OR "Perfluorooctanesulfonamide" OR "Perfluorooctylsulfonamide" OR "PFOSA" OR "Perfluorooctane sulphonamide" OR "Perfluorooctane sulfonamide")</p> <p>Not recognized in PubMed: "1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-Heptadecafluoro-1-octanesulfonamide", "1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluorooctane-1-sulfonamide", "1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-Heptadecafluorooctane-1-sulfonamide", "1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-", "1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-", "AI 3-29759", "Desethylsulfluramid", "Heptadecafluorooctansulfonamid", "heptadecafluorooctanesulfonamide", "heptadecafluorooctanesulphonamide", "heptadecafluorooctanosulfonamida", "OCTANESULFONAMIDE, HEPTADECAFLUORO-", "Perfluorooctanesulphonamide"</p>
375-22-4	<p>("Perfluorobutanoic acid" OR "PFBA" OR "375-22-4"[rn] OR "Heptafluorobutanoic acid" OR "heptafluorobutyric acid" OR "Perfluorobutyric acid"[Supplementary Concept] OR "Perfluorobutyric acid" OR "Perfluoro-n-butanoic acid" OR "perfluorobutanoate" OR "perfluorobutyrate")</p> <p>Not recognized in PubMed: "DTXSID4059916", "2,2,3,3,4,4,4-Heptafluorobutanoic acid", "Acide heptafluorobutyrique", "acido heptafluorobutirico", "Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-", "Butanoic acid, heptafluoro-", "Butyric acid, heptafluoro-", "Heptafluorobuttersaure", "Heptafluoro-1-butanoic acid", "Perfluoropropanecarboxylic acid", "heptafluorobutanoatato", "perfluorobutyric acid, potassium salt", "perfluorobutyric acid, silver (1+) salt", "perfluorobutyric acid, sodium salt", "potassium heptafluorobutanoate", "potassium perfluorobutanoate", "silver heptafluorobutanoate", "silver perfluorobutanoate", "silver(1+) heptafluorobutanoate", "sodium heptafluorobutanoate", "sodium perfluorobutanoate"</p>
375-85-9	<p>("375-85-9"[rn] OR "Perfluoroheptanoic acid" OR "perfluoroheptanoic acid" OR "Perfluoroheptanoic acid" OR "perfluoro-n-heptanoic acid" OR "Perfluoro-n-heptanoic acid" OR "Tridecafluoroheptanoic acid" OR "PFHpA" OR "Perfluoroheptanoate")</p> <p>Not recognized in PubMed: "2,2,3,3,4,4,5,5,6,6,7,7,7-Tridecafluoroheptanoic acid", "Acide perfluoroheptanoique", "acido perfluoroheptanoico", "Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-", "Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-", "Heptanoic acid, tridecafluoro-", "Perfluorheptansauere", "tridecafluoro-1-heptanoic acid", "Tridecafluoro-1-heptanoic acid"</p>
307-24-4	<p>("Perfluorohexanoic acid" OR "Perfluorohexanoic acid"[Supplementary Concept] OR "PFHxA" OR "Perfluoro-n-hexanoic acid" OR "ammonium perfluorohexanoate" OR "perfluorohexanoate" OR "PFHxA perfluorohexanoic acid" OR "sodium perfluorohexanoate")</p> <p>Not recognized in PubMed: "DTXSID3031862", "307-24-4", "2,2,3,3,4,4,5,5,6,6,6-Undecafluorohexanoic acid", "Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-", "Hexanoic acid, undecafluoro-", "Perfluoro-1-pentanecarboxylic acid", "Undecafluoro-1-hexanoic acid", "Undecafluorocaproic acid", "Undecafluorohexanoic acid", "ammonium undecafluorohexanoate", "APFHxA", "Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-, ammonium salt", "hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-, methyl ester", "methyl perfluorohexanoate", "methyl undecafluorohexanoate", "undecafluorohexanoatato"</p>
375-73-5	<p>("Perfluorobutanesulfonic acid"[supplementary concept] OR "Perfluorobutanesulfonic acid" OR "PFBS" OR "Nonafluorobutane-1-sulfonic acid" OR "perfluoro-1-butanesulfonic acid"[tiab] OR "nonafluorobutanesulfonyl fluoride" OR "perfluorobutane sulfonate" OR "perfluorobutane sulfonic acid" OR "perfluorobutanesulfonate" OR "perfluorobutanesulfonyl fluoride" OR</p>

	<p>"potassium perfluorobutane sulfonate" OR "potassium perfluorobutanesulfonate" OR "potassium PFBS")</p> <p>Not recognized in PubMed: "DTXSID5030030", "375-73-5", "1,1,2,2,3,3,4,4,4-Nonafluoro-1-butanesulfonic acid", "1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-", "1-Butanesulfonic acid, nonafluoro-", "1-Perfluorobutanesulfonic acid", "1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonic acid", "1,1,2,2,3,3,4,4,4-Nonafluoro-1-butanesulfonyl fluoride", "1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonyl fluoride", "1-butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro, potassium salt", "ammonium nonafluorobutane-1-sulfonate", "ammonium perfluorobutanesulfonate", "nonafluorobutane-1-sulfonate", "potassium nonafluorobutane-1-sulfonate", "Nonafluorobutanesulfonic acid", "Nonafluoro-1-butanesulfonic acid", "perfluoro-1-butanesulfonyl fluoride"</p>
75-37-6	<p>("1,1-Difluoroethane" OR "152a" OR "75-37-6"[rn] OR "HFA 152a" OR "HFC 152a" OR "R 152a" OR "DIFLUOROETHANE" OR "DIFLUOROETHYLENE")</p> <p>Not recognized in PubMed: "Dymel 152", "Dymel 152A", "Ethane, 1,1-difluoro-", "FKW 152a", "Formacel Z 2", "Fron 152a", "HCFC 152a", "HFO 152a", "TG 152a", "1,1-DIFLUORAETHAN", "1,1-Difluoroethan", "1,1-difluoroetano", "Algofrene 67", "ETHANE,1,1-DIFLUORO", "Ethylidene fluoride", "Genetron 152A", "Propellant 152A", "Solkane 152a", "UN 1030"</p>
811-97-2	<p>("1,1,1,2-Tetrafluoroethane" OR "811-97-2"[rn] OR "Norfluran" OR "Norflurane" OR "TETRAFLUROETHANE")</p> <p>Not recognized in PubMed: "1,1,1,2-Tetrafluoroethan", "Ethane, 1,1,1,2-tetrafluoro-", "HFC-134a", "1,1,1,2-TETRAFLUROAETHAN", "1,2,2,2-Tetrafluoroethane", "Arcton 134a", "Ecolo Ace 134a", "ETHANE,1,1,1,2-TETRAFLURO", "Forane 134a", "Genetron 134a", "Khladon 134a", "Meforex 134a", "norflurano", "Refrigerant R 134a", "Solkane 134a", "UN 3159"</p>
3825-26-1	<p>("3825-26-1"[rn] OR "Ammonium perfluorooctanoate" OR "APFO")</p> <p>Not recognized in PubMed: "DTXSID8037708"; "Ammoniumpentadecafluorooctanoat"; "ammoniumpentadeca- fluorooctanoate"; "Ammonium pentadecafluorooctanoate"; "Ammonium salt of perfluorooctanoate"; "OCTANOATE, PENTADECAFLURO-, AMMONIUM"; "Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt"; "Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1)"; "Octanoic acid, pentadecafluoro-, ammonium salt"; "Pentadecafluorooctanoate d'ammonium"; "pentadecafluorooctanoato de amonio"; "Pentadecafluorooctanoic acid ammonium salt"; "Perfluorooctanoic acid ammonium salt"; "PFOA, ammonium salt"; "PFOA cpd"; "Ammonium perfluorocaprylate"; "Ammonium salt of PFOA"; "Ammonium salt of perfluorooctanoic acid"</p>

Table 3. Web of Science Chemical Search Terms.

Chemical	Chemical Terms Search Strategy for Web of Science
647-42-7	<p>("1,1,2,2-Tetrahydroperfluorooctan-1-ol" OR "1,1,2,2-Tetrahydroperfluorooctanol" OR "1,1,2,2-Tetrahydrotridecafluorooctanol" OR "1H,1H,2H,2H-Perfluoro-1-octanol" OR "1H,1H,2H,2H-Perfluorooctan-1-ol" OR "1H,1H,2H,2H-Perfluorooctanol" OR "1H,1H,2H,2H-Tetrahydroperfluoro-1-octanol" OR "1H,1H,2H,2H-Tridecafluoro-1-octanol" OR "1H,1H,2H,2H-Tridecafluoro-n-octanol" OR "1H,1H,2H,2H-Tridecafluorooctanol" OR "1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-" OR "2-(Perfluorohexyl)ethanol" OR "2-(Perfluorohexyl)ethyl alcohol" OR "2-(Tridecafluorohexyl)ethanol" OR "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol" OR "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol" OR "3,3,4,4,5,5,6,6,7,7,8,8,8-</p>

- tridecafluorooctane-1-ol" OR "3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctanol" OR "647-42-7" OR "Capstone 62AL" OR "Cheminox FA 6" OR "Fluowet EA 600" OR "Foralkyl EOH 6" OR "FtOH 6:2" OR "Perfluorohexylethanol" OR "TEOH 6" OR "6:2 FTOH" OR "6:2FTOH" OR "Fluorotelomer alcohol 6:2" OR "6:2 Fluorotelomer alcohol")
- 678-39-7 ("1,1,2-Tetrahydroheptadecafluorodecanol" OR "1,1,2-Tetrahydroperfluoro-1-decanol" OR "1,1,2,2-Tetrahydroperfluorodecan-1-ol" OR "1,1,2,2-Tetrahydroperfluorodecanol" OR "1,1,2,2-Tetrahydroperfluorodecyl alcohol" OR "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-" OR "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8, 9,9,10,10,10-heptadecafluoro-" OR "1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-" OR "1H,1H,2H,2H-Heptadecafluoro-1-decanol" OR "1H,1H,2H,2H-Perfluorodecan-1-ol" OR "1H,1H,2H,2H-Perfluorodecanol" OR "1H,1H,2H,2H-Tetrahydroperfluoro-1-decanol" OR "2-(Heptadecafluorooctyl)ethanol" OR "2-(Perfluorooctyl)ethanol" OR "2-Perfluorooctyl ethanol (8:2)" OR "2-(Perfluorooctyl)ethyl alcohol" OR "3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecan-1-ol" OR "678-39-7" OR "8-2 Telomer B alcohol" OR "A 1820" OR "beta-(Heptadecafluorooctyl)ethanol" OR "C 1820" OR "Daikin A 1820" OR "Fluorotelomer alcohol 8:2" OR "Fluowet EA 800" OR "FtOH 8:2" OR "(Perfluorooctyl)ethanol" OR "PFA 8" OR "8:2 FTOH" OR "8:2FTOH" OR "8:2 Fluorotelomer alcohol")
- 754-91-6 ("1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-Heptadecafluoro-1-octanesulfonamide" OR "1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonamide" OR "1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-Heptadecafluorooctane-1-sulfonamide" OR "1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-" OR "1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-" OR "754-91-6" OR "AI 3-29759" OR "Desethylsulfuramid" OR "Heptadecafluorooctanesulfonamid" OR "heptadecafluorooctanesulfonamide" OR "heptadecafluorooctanesulphonamide" OR "heptadecafluorooctanosulfonamida" OR "OCTANESULFONAMIDE, HEPTADEC AFLUORO-" OR "Perfluoro-1-octanesulfonamide" OR "Perfluorooctanesulfonamide" OR "Perfluorooctylsulfonamide" OR "PFOSA" OR "Perfluorooctane sulphonamide" OR "Perfluorooctane sulfonamide" OR "Perfluorooctanesulphonamide")
- 375-22-4 ("DTXSID4059916" OR "Perfluorobutanoic acid" OR "PFBA" OR "375-22-4" OR "2,2,3,3,4,4,4-Heptafluorobutanoic acid" OR "Acide heptafluorobutyrique" OR "acido heptafluorobutyrico" OR "Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-" OR "Butanoic acid, heptafluoro-" OR "Butyric acid, heptafluoro-" OR "Heptafluorbuttersaure" OR "Heptafluoro-1-butanoic acid" OR "Heptafluorobutanoic acid" OR "heptafluorobutyric acid" OR "Perfluorobutyric acid" OR "Perfluoro-n-butanoic acid" OR "Perfluoropropanecarboxylic acid" OR "heptafluorobutanoatato" OR "perfluorobutanoate" OR "perfluorobutyrate" OR "perfluorobutyric acid, potassium salt" OR "perfluorobutyric acid, silver (1+) salt" OR "perfluorobutyric acid, sodium salt" OR "potassium heptafluorobutanoate" OR "potassium perfluorobutanoate" OR "silver heptafluorobutanoate" OR "silver perfluorobutanoate" OR "silver(1+) heptafluorobutanoate" OR "sodium heptafluorobutanoate" OR "sodium perfluorobutanoate")
- 375-85-9 ("2,2,3,3,4,4,5,5,6,6,7,7,7-Tridecafluoroheptanoic acid" OR "375-85-9" OR "Acide perfluoroheptanoique" OR "acido perfluoroheptanoico" OR "Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-" OR "Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-" OR "Heptanoic acid, tridecafluoro-" OR "Perfluorheptansaure" OR "Perfluoroenanthic acid" OR "perfluoroheptanoic acid" OR "Perfluoroheptanoic acid" OR "perfluoro-n-heptanoic acid" OR "Perfluoro-n-heptanoic acid" OR "tridecafluoro-1-heptanoic acid" OR "Tridecafluoro-1-heptanoic acid" OR "Tridecafluoroheptanoic acid" OR "PFHpA" OR "Perfluoroheptanoate")

- 307-24-4 ("DTXSID3031862" OR "307-24-4" OR "Perfluorohexanoic acid" OR "PFHxA" OR "2,2,3,3,4,4,5,5,6,6,6-Undecafluorohexanoic acid" OR "Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-" OR "Hexanoic acid, undecafluoro-" OR "Perfluoro-1-pentanecarboxylic acid" OR "Perfluoro-n-hexanoic acid" OR "Undecafluoro-1-hexanoic acid" OR "Undecafluorocaproic acid" OR "Undecafluorohexanoic acid" OR "ammonium perfluorohexanoate" OR "ammonium undecafluorohexanoate" OR "APFHxA" OR "Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-, ammonium salt" OR "hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-, methyl ester" OR "methyl perfluorohexanoate" OR "methyl undecafluorohexanoate" OR "perfluorohexanoate" OR "PFHxA perfluorohexanoic acid" OR "sodium perfluorohexanoate" OR "undecafluorohexanoatato")
- 375-73-5 ("DTXSID5030030" OR "Perfluorobutanesulfonic acid" OR "375-73-5" OR "PFBS" OR "1,1,2,2,3,3,4,4,4-Nonafluoro-1-butanesulfonic acid" OR "1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-" OR "1-Butanesulfonic acid, nonafluoro-" OR "1-Perfluorobutanesulfonic acid" OR "Nonafluorobutane-1-sulfonic acid" OR "perfluoro-1-butanesulfonic acid" OR "1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonic acid" OR "1,1,2,2,3,3,4,4,4-Nonafluoro-1-butanesulfonyl fluoride" OR "1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonyl fluoride" OR "1-butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro, potassium salt" OR "ammonium nonafluorobutane-1-sulfonate" OR "ammonium perfluorobutanesulfonate" OR "nonafluorobutane-1-sulfonatato" OR "nonafluorobutanesulfonyl fluoride" OR "perfluoro-1-butanesulfonyl fluoride" OR "perfluorobutane sulfonate" OR "perfluorobutane sulfonic acid" OR "perfluorobutanesulfonate" OR "perfluorobutanesulfonyl fluoride" OR "potassium nonafluorobutane-1-sulfonate" OR "potassium perfluorobutane sulfonate" OR "potassium perfluorobutanesulfonate" OR "potassium PFBS" OR "Nonafluorobutanesulfonic acid" OR "Nonafluoro-1-butanesulfonic acid")
- 75-37-6 ("1,1-Difluoroethane" OR "152a" OR "75-37-6" OR "Dymel 152" OR "Dymel 152A" OR "Ethane, 1,1-difluoro-" OR "FKW 152a" OR "Formacel Z 2" OR "Fron 152a" OR "HCFC 152a" OR "HFA 152a" OR "HFC 152a" OR "HFO 152a" OR "R 152a" OR "TG 152a" OR "1,1-DIFLUORAETHAN" OR "1,1-Difluorethan" OR "1,1-difluoroetano" OR "Algofrene 67" OR "DIFLUOROETHANE" OR "DIFLUOROETHYLENE" OR "ETHANE,1,1-DIFLUORO" OR "Ethylidene fluoride" OR "Genetron 152A" OR "Propellant 152A" OR "Solkane 152a" OR "UN 1030")
- 811-97-2 ("1,1,1,2-Tetrafluoroethan" OR "1,1,1,2-Tetrafluoroethane" OR "811-97-2" OR "Ethane, 1,1,1,2-tetrafluoro-" OR "HFC-134a" OR "1,1,1,2-TETRAFLUORAETHAN" OR "1,2,2,2-Tetrafluoroethane" OR "Arcton 134a" OR "Ecolo Ace 134a" OR "ETHANE,1,1,1,2-TETRAFLUORO" OR "Forane 134a" OR "Genetron 134a" OR "Khladon 134a" OR "Meforex 134a" OR "Norfluran" OR "Norflurane" OR "norflurano" OR "Refrigerant R 134a" OR "Solkane 134a" OR "TETRAFLUOROETHANE" OR "UN 3159")
- 3825-26-1 ("DTXSID8037708" OR "3825-26-1" OR "Ammonium perfluorooctanoate" OR "APFO" OR "Ammoniumpentadecafluorooctanoat" OR "ammoniumpentadecafluorooctanoate" OR "Ammonium pentadecafluorooctanoate" OR "Ammonium salt of perfluorooctanoate" OR "OCTANOATE, PENTADECAFLUORO-, AMMONIUM" OR "Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt" OR "Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1)" OR "Octanoic acid, pentadecafluoro-, ammonium salt" OR "Pentadecafluorooctanoate d'ammonium" OR "pentadecafluorooctanoato de amonio" OR "Pentadecafluorooctanoic acid ammonium salt" OR "Perfluorooctanoic acid ammonium salt" OR "PFOA, ammonium salt" OR "PFOA cpd" OR "Ammonium perfluorocaprylate" OR "Ammonium salt of PFOA" OR "Ammonium salt of perfluorooctanoic acid")

1.3.2. Exposure Search Strategies

Table 4. Exposure Search Terms.

Database	Exposure Search Strategy
PubMed	(("expos*" OR exposure OR concentration OR dose OR chronic OR acute OR sub-chronic OR biomonitoring OR frequency OR duration OR magnitude OR "general population" OR susceptibility OR highly-exposed OR child*) AND ("inhal*" OR "air" OR "derm*" OR "ingest*" OR "dust" OR "occupation*" OR "mixture" OR "complex" OR "dose" OR "level" OR "levels" OR "duration" OR "frequency" OR "in-utero" OR "fetal" OR "embryo" OR "infant*" OR "child*" OR "pregnant*" OR "maternal*" OR "breast feed*" OR "breast fed" OR "elder*" OR water OR "drinking water" OR food OR dietary OR diet OR soil OR dust OR air OR "indoor air" OR fish OR game OR "personal breathing zone" OR blood OR urine OR plasma OR breast-milk OR emission OR migration OR skin OR wipe OR mouthing OR mass-transfer OR "partition coefficient" OR model OR indoor OR inhalation OR oral OR dermal OR absorption OR distribution OR metabolism OR excretion OR "exposure factor" OR "activity pattern"))
Web of Science	(("expos*" OR exposure OR concentration OR dose OR chronic OR acute OR sub-chronic OR biomonitoring OR frequency OR duration OR magnitude OR "general population" OR susceptibility OR highly-exposed OR child*) AND ("inhal*" OR "air" OR "derm*" OR "ingest*" OR "dust" OR "occupation*" OR "mixture" OR "complex" OR "dose" OR "level" OR "levels" OR "duration" OR "frequency" OR "in-utero" OR "fetal" OR "embryo" OR "infant*" OR "child*" OR "pregnant*" OR "maternal*" OR "breast feed*" OR "breast fed" OR "elder*" OR water OR "drinking water" OR food OR dietary OR diet OR soil OR dust OR air OR "indoor air" OR fish OR game OR "personal breathing zone" OR blood OR urine OR plasma OR breast-milk OR emission OR migration OR skin OR wipe OR mouthing OR mass-transfer OR "partition coefficient" OR model OR indoor OR inhalation OR oral OR dermal OR absorption OR distribution OR metabolism OR excretion OR "exposure factor" OR "activity pattern"))

1.3.3. Consumer Products Search Strategies

Table 5. Consumer Products Search Terms.

Database	Consumer Products Search Strategy
PubMed	("apartment*" [tiab] OR "appliance*" [tiab] OR "architectural" [tiab] OR "architecture*" [tiab] OR "building" [tiab] OR "buildings" [tiab] OR "carpet" [tiab] OR "carpeting" [tiab] OR "carpets" [tiab] OR "rug" [tiab] OR "rugs" [tiab] OR "cement" [tiab] OR "cements" [tiab] OR "concrete" [tiab] OR "condominium*" [tiab] OR "couch*" [tiab] OR "sofa*" [tiab] OR "drywall*" [tiab] OR "ductwork*" [tiab] OR "duct work*" [tiab] OR "fabric*" [tiab] OR "floor" [tiab] OR "flooring" [tiab] OR "floors" [tiab] OR "home environment*" [tiab] OR "home product*" [tiab] OR "house environment*" [tiab] OR "house product*" [tiab] OR "insulation*" [tiab] OR "molding*" [tiab] OR "paint*" [tiab] OR "paintchip*" [tiab] OR "paints" [tiab] OR "plaster*" [tiab] OR "residential" [tiab] OR "roof*" [tiab] OR "room volume*" [tiab] OR "townhouse*" [tiab] OR furniture [tiab] OR "home furnish*" [tiab] OR furnishing* [tiab] OR "home improvement*" [tiab] OR "building material*" [tiab] OR "beanbag*" [tiab] OR "bean bag*" [tiab] OR "bedding*" [tiab] OR "blanket" [tiab] OR

"blankets"[tiab] OR "upholstery"[tiab] OR "bakeware*"[tiab] OR "bake ware*"[tiab] OR "cookware*"[tiab] OR "cook ware*"[tiab] OR "pan"[tiab] OR "pans"[tiab] OR "pot"[tiab] OR "pots"[tiab] OR "utensil*"[tiab] OR "liquid repel*"[tiab] OR "liquid-repel*"[tiab] OR "liquid resist*"[tiab] OR "outdoor cloth*"[tiab] OR "waterproof*"[tiab] OR "water proof*"[tiab] OR "water repel*"[tiab] OR "water resist*"[tiab] OR "stain proof*"[tiab] OR "stain repel*"[tiab] OR "stain resist*"[tiab] OR "stain-resist*"[tiab] OR "stain treatment*"[tiab] OR "nonstick"[tiab] OR "non stick"[tiab] OR "nonsticking"[tiab] OR "non sticking"[tiab] OR "non-stick*"[tiab] OR "food pack*"[tiab] OR "food wrap*"[tiab] OR "microwave container*"[tiab] OR "microwave popcorn bag*"[tiab] OR "pizza box*"[tiab] OR "plastic bag*"[tiab] OR "plastic container*"[tiab] OR "plastic wrap*"[tiab] OR "sandwich wrap*"[tiab] OR "takeout container*"[tiab] OR "fast food wrap*"[tiab] OR "fast food container*"[tiab] OR "food container*"[tiab] OR "cleaning product*"[tiab] OR "air freshener"[tiab] OR "air fresheners"[tiab] OR "bleach*"[tiab] OR "cleaner*"[tiab] OR "cleaning"[tiab] OR "deodorizer*"[tiab] OR "detergent*"[tiab] OR "dishsoap*"[tiab] OR "dishwash*"[tiab] OR "dish wash*"[tiab] OR "disinfectant*"[tiab] OR "soap"[tiab] OR "soaps"[tiab] OR "spot remover*"[tiab] OR "stain remover*"[tiab] OR "apparel"[tiab] OR "bra"[tiab] OR "bras"[tiab] OR "cloth"[tiab] OR "clothes"[tiab] OR "clothing"[tiab] OR "colorfast"[tiab] OR "color fast"[tiab] OR "diaper"[tiab] OR "diapers"[tiab] OR "dresses"[tiab] OR "footwear"[tiab] OR "garment*"[tiab] OR "jeans"[tiab] OR "polyester"[tiab] OR "polyesters"[tiab] OR "ribbon"[tiab] OR "ribbons"[tiab] OR "shirt"[tiab] OR "shirts"[tiab] OR "shoe"[tiab] OR "shoes"[tiab] OR "socks"[tiab] OR "textile*"[tiab] OR "trouser*"[tiab] OR "antifreeze"[tiab] OR "anti freeze"[tiab] OR "automo*"[tiab] OR "automobile*"[tiab] OR "automotive*"[tiab] OR "car"[tiab] OR "cars"[tiab] OR "carseat*"[tiab] OR "coolant*"[tiab] OR "motor"[tiab] OR "motors"[tiab] OR "tire"[tiab] OR "tires"[tiab] OR "vehicle*"[tiab] OR "adhesive"[tiab] OR "adhesives"[tiab] OR "antiseptic*"[tiab] OR "anti septic*"[tiab] OR "batteries"[tiab] OR "battery"[tiab] OR "blowing agent*"[tiab] OR "bonding agent*"[tiab] OR "camping tent*"[tiab] OR "camp tent*"[tiab] OR "circuit board*"[tiab] OR "circuitry"[tiab] OR "colorant*"[tiab] OR "computer*"[tiab] OR "degreaser*"[tiab] OR "degreasing"[tiab] OR "diesel"[tiab] OR "doll"[tiab] OR "dolls"[tiab] OR "drycleaning"[tiab] OR "dry cleaning"[tiab] OR "dye"[tiab] OR "dyes"[tiab] OR "electronic"[tiab] OR "electronics"[tiab] OR "embalming"[tiab] OR "fertilizer*"[tiab] OR "fiberglass*"[tiab] OR "fiber glass*"[tiab] OR "fire extinguisher*"[tiab] OR "firefighting*"[tiab] OR "fire fighting*"[tiab] OR "fire-fighting"[tiab] OR "fireproof*"[tiab] OR "fire proof*"[tiab] OR "fire retardant*"[tiab] OR "flameproof*"[tiab] OR "flame proof*"[tiab] OR "flame retardant*"[tiab] OR "foam"[tiab] OR "foams"[tiab] OR "gasoline"[tiab] OR "glue"[tiab] OR "glues"[tiab] OR "ink"[tiab] OR "inkjet*"[tiab] OR "kerosene"[tiab] OR "lacquer*"[tiab] OR "leather"[tiab] OR "leathers"[tiab] OR "lubricant*"[tiab] OR "packaging"[tiab] OR "packing material*"[tiab] OR "paper"[tiab] OR "pigment*"[tiab] OR "plastic"[tiab] OR "plasticizer*"[tiab] OR "plastics"[tiab] OR "pottery"[tiab] OR "pretreatment*"[tiab] OR "propellant*"[tiab] OR "resin"[tiab] OR "resins"[tiab] OR "refrigerant*"[tiab] OR "remover*"[tiab] OR "retardant*"[tiab] OR "rust inhibitor*"[tiab] OR "rust preventative*"[tiab] OR "sealant*"[tiab] OR "ski wax*"[tiab] OR "solvent*"[tiab] OR "sporting equipment"[tiab] OR "sporting goods"[tiab] OR "sports equipment"[tiab] OR "stuffed animal*"[tiab] OR "surfactant*"[tiab] OR "teddy bear*"[tiab] OR "toner"[tiab] OR "toners"[tiab] OR "toy"[tiab] OR "toys"[tiab] OR "varnish*"[tiab] OR "wetting agent*"[tiab] OR "adhesive"[tiab] OR "adhesives"[tiab] OR "antiseptic*"[tiab] OR "anti septic*"[tiab] OR "batteries"[tiab] OR "battery"[tiab] OR "blowing agent*"[tiab] OR "bonding agent*"[tiab] OR "cigar*"[tiab] OR "circuit board*"[tiab] OR "circuitry"[tiab] OR "colorant*"[tiab] OR "computer*"[tiab] OR "degreaser*"[tiab] OR "degreasing"[tiab] OR "doll"[tiab] OR "dolls"[tiab] OR "dye"[tiab] OR "dyes"[tiab] OR "electronic"[tiab] OR "electronics"[tiab] OR "fiberglass*"[tiab] OR "fiber glass*"[tiab] OR "fireproof*"[tiab] OR "fire proof*"[tiab] OR "fire retardant*"[tiab] OR "flameproof*"[tiab] OR "flame proof*"[tiab] OR "flame retardant*"[tiab] OR "glue"[tiab] OR "glues"[tiab] OR "ink"[tiab] OR "inkjet*"[tiab] OR "lacquer*"[tiab] OR "leather"[tiab] OR

"leathers"[tiab] OR "lubricant*"[tiab] OR "packaging"[tiab] OR "packing material*"[tiab] OR "paper"[tiab] OR "pigment*"[tiab] OR "plastic"[tiab] OR "plasticizer*"[tiab] OR "plastics"[tiab] OR "pottery"[tiab] OR "preservative*"[tiab] OR "pretreatment*"[tiab] OR "resin"[tiab] OR "resins"[tiab] OR "refrigerant*"[tiab] OR "remover*"[tiab] OR "retardant*"[tiab] OR "rust inhibitor*"[tiab] OR "rust preventative*"[tiab] OR "sealant*"[tiab] OR "solvent*"[tiab] OR "stuffed animal*"[tiab] OR "surfactant*"[tiab] OR "teddy bear*"[tiab] OR "toner"[tiab] OR "toners"[tiab] OR "toy"[tiab] OR "toys"[tiab] OR "varnish*"[tiab] OR "wetting agent*"[tiab]) AND ("consumer product*"[tiab] OR "concentrat*"[tiab] OR "bioconcentrat*"[tiab] OR "level"[tiab] OR "levels"[tiab] OR content*[tiab] OR emission*[tiab] OR migration*[tiab] OR production[tiab] OR application[tiab])

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("apartment*" OR "appliance*" OR "architectural" OR "architecture*" OR "building" OR "buildings" OR "carpet" OR "carpeting" OR "carpets" OR "rug" OR "rugs" OR "cement" OR "cements" OR "concrete" OR "condominium*" OR "couch*" OR "sofa*" OR "drywall*" OR "ductwork*" OR "duct work*" OR "fabric*" OR "floor" OR "flooring" OR "floors" OR "home environment*" OR "home product*" OR "house environment*" OR "house product*" OR "insulation*" OR "molding*" OR "paint*" OR "paintchip*" OR "paints" OR "plaster*" OR "residential" OR "roof*" OR "room volume*" OR "townhouse*" OR furniture OR "home furnish*" OR furnishing* OR "home improvement*" OR "building material*" OR "beanbag*" OR "bean bag*" OR "bedding*" OR "blanket" OR "blankets" OR "upholstery" OR "bakeware*" OR "bake ware*" OR "cookware*" OR "cook ware*" OR "pan" OR "pans" OR "pot" OR "pots" OR "utensil*" OR "liquid repel*" OR "liquid-repel*" OR "liquid resist*" OR "outdoor cloth*" OR "waterproof*" OR "water proof*" OR "water repel*" OR "water resist*" OR "stain proof*" OR "stain repel*" OR "stain resist*" OR "stain-resist*" OR "stain treatment*" OR "nonstick" OR "non stick" OR "nonsticking" OR "non sticking" OR "non-stick*" OR "food pack*" OR "food wrap*" OR "microwave container*" OR "microwave popcorn bag*" OR "pizza box*" OR "plastic bag*" OR "plastic container*" OR "plastic wrap*" OR "sandwich wrap*" OR "takeout container*" OR "fast food wrap*" OR "fast food container*" OR "food container*" OR "cleaning product*" OR "air freshener" OR "air fresheners" OR "bleach*" OR "cleaner*" OR "cleaning" OR "deodorizer*" OR "detergent*" OR "dishsoap*" OR "dishwash*" OR "dish wash*" OR "disinfectant*" OR "soap" OR "soaps" OR "spot remover*" OR "stain remover*" OR "apparel" OR "bra" OR "bras" OR "cloth" OR "clothes" OR "clothing" OR "colorfast" OR "color fast" OR "diaper" OR "diapers" OR "dresses" OR "footwear" OR "garment*" OR "jeans" OR "polyester" OR "polyesters" OR "ribbon" OR "ribbons" OR "shirt" OR "shirts" OR "shoe" OR "shoes" OR "socks" OR "textile*" OR "trouser*" OR "antifreeze" OR "anti freeze" OR "automo*" OR "automobile*" OR "automotive*" OR "car" OR "cars" OR "carseat*" OR "coolant*" OR "motor" OR "motors" OR "tire" OR "tires" OR "vehicle*" OR "adhesive" OR "adhesives" OR "antiseptic*" OR "anti septic*" OR "batteries" OR "battery" OR "blowing agent*" OR "bonding agent*" OR "camping tent*" OR "camp tent*" OR "circuit board*" OR "circuitry" OR "colorant*" OR "computer*" OR "degreaser*" OR "degreasing" OR "diesel" OR "doll" OR "dolls" OR "drycleaning" OR "dry cleaning" OR "dye" OR "dyes" OR "electronic" OR "electronics" OR "embalming" OR "fertilizer*" OR "fiberglass*" OR "fiber glass*" OR "fire extinguisher*" OR "firefighting*" OR "fire fighting*" OR "fire-fighting" OR "fireproof*" OR "fire proof*" OR "fire retardant*" OR "flameproof*" OR "flame proof*" OR "flame retardant*" OR "foam" OR "foams" OR "gasoline" OR "glue" OR "glues" OR "ink" OR "inkjet*" OR "kerosene" OR "lacquer*" OR "leather" OR "leathers" OR "lubricant*" OR "packaging" OR "packing material*" OR "paper" OR "pigment*" OR "plastic" OR "plasticizer*" OR "plastics" OR "pottery" OR "pretreatment*" OR "propellant*" OR "resin" OR "resins" OR "refrigerant*" OR "remover*" OR "retardant*" OR "rust inhibitor*" OR "rust preventative*" OR "sealant*" OR "ski wax*" OR "solvent*" OR "sporting equipment" OR "sporting goods" OR "sports equipment" OR "stuffed OR animal*" OR "surfactant*" OR "teddy bear*" OR "toner" OR "toners" OR "toy" OR "toys" OR "varnish*" OR "wetting agent*" OR "adhesive" OR

Database	Consumer Products Search Strategy
	"adhesives" OR "antiseptic*" OR "anti septic*" OR "batteries" OR "battery" OR "blowing agent*" OR "bonding agent*" OR "cigar*" OR "circuit board*" OR "circuitry" OR "colorant*" OR "computer*" OR "degreaser*" OR "degreasing" OR "doll" OR "dolls" OR "dye" OR "dyes" OR "electronic" OR "electronics" OR "fiberglass*" OR "fiber glass*" OR "fireproof*" OR "fire proof*" OR "fire retardant*" OR "flameproof*" OR "flame proof*" OR "flame retardant*" OR "glue" OR "glues" OR "ink" OR "inkjet*" OR "lacquer*" OR "leather" OR "leathers" OR "lubricant*" OR "packaging" OR "packing material*" OR "paper" OR "pigment*" OR "plastic" OR "plasticizer*" OR "plastics" OR "pottery" OR "preservative*" OR "pretreatment*" OR "resin" OR "resins" OR "refrigerant*" OR "remover*" OR "retardant*" OR "rust inhibitor*" OR "rust preventative*" OR "sealant*" OR "solvent*" OR "stuffed animal*" OR "surfactant*" OR "teddy bear*" OR "toner" OR "toners" OR "toy" OR "toys" OR "varnish*" OR "wetting agent*") AND ("consumer product*" OR "concentrat*" OR "bioconcentrat*" OR "level" OR "levels" OR content* OR emission* OR migration* OR production OR application)

1.3.4. Dose-Response Search Strategies

Table 6. Dose-Response Search Terms.

Database	Dose-Response Search Strategy
PubMed	("Dose-Response Relationship, Drug"[Mesh] OR Dose-Response* OR Dose-group* OR Dose-Range*) OR ((toxic* OR hazard* OR risk*) AND ("relative potenc*" OR "class*" OR "class-based" OR "group*" OR "mixture*" OR "surrogate*" OR "analog*" OR "read across" OR "read-across"))
Web of Science	(Dose-Response* OR Dose-group* OR Dose-Range*) OR ((toxic* OR hazard* OR risk*) AND ("relative potenc*" OR "class*" OR "class-based" OR "group*" OR "mixture*" OR "surrogate*" OR "analog*" OR "read across" OR "read-across"))

1.3.5. Toxicity Reference Value (TRV) Search Strategies

Table 7. TRV Search Terms.

Database	TRV Search Strategy
PubMed	("Toxicological Reference Value" OR "Toxicological Reference Values" OR "Toxicity Reference Value" OR "Toxicity Reference Values" OR "Reference Dose" OR "Reference Doses" OR "Reference Dosage" OR "Reference Concentration" OR "Reference Concentrations" OR "Acceptable Daily Concentration" OR "Acceptable Daily Concentrations" OR "Acceptable Daily Intake" OR "Acceptable Daily Intakes" OR "Minimal risk level" OR "Minimal risk levels" OR "Cancer potency estimate" OR "Cancer potency estimates" OR "Cancer Potency Estimation" OR "Cancer Potency Estimations" OR "slope factor" OR "slope factors" OR "relative hazard potency" OR "relative hazard potential" OR "margin of exposure" OR "margins of exposures" OR "threshold of toxicological concern" OR (TRVs[tiab] AND Toxic*[tiab])) OR ((toxic* OR hazard* OR risk*) AND ("New Approach" OR "New Approaches" OR "Alternative method" OR "Alternative methods" OR "alternative methodology" OR "Novel Method" OR "novel methods"

Database	TRV Search Strategy
	OR "novel methodology" OR "New method" OR "new methods" OR "new methodology" OR NAMs[ti] OR "Alternative data" OR "Novel data" OR "unique data" OR "alternate data" OR "in vitro data" OR "mechanistic" OR "computational method" OR "computational methods" OR "computational methodology" OR "Read Across" OR "Read-Across" OR transcriptomic* OR QIVIVE OR "Quantitative in vitro to in vivo extrapolation" OR IVIVE OR "in vitro to in vivo extrapolation"))
Web of Science	("Toxicological Reference Value" OR "Toxicological Reference Values" OR "Toxicity Reference Value" OR "Toxicity Reference Values" OR "Reference Dose" OR "Reference Doses" OR "Reference Dosage" OR "Reference Concentration" OR "Reference Concentrations" OR "Acceptable Daily Concentration" OR "Acceptable Daily Concentrations" OR "Acceptable Daily Intake" OR "Acceptable Daily Intakes" OR "Minimal risk level" OR "Minimal risk levels" OR "Cancer potency estimate" OR "Cancer potency estimates" OR "Cancer Potency Estimation" OR "Cancer Potency Estimations" OR "slope factor" OR "slope factors" OR "relative hazard potency" OR "relative hazard potential" OR "margin of exposure" OR "margins of exposures" OR "threshold of toxicological concern" OR (TRVs AND Toxic*)) OR ((toxic* OR hazard* OR risk*) AND ("New Approach" OR "New Approaches" OR "Alternative method" OR "Alternative methods" OR "alternative methodology" OR "Novel Method" OR "novel methods" OR "novel methodology" OR "New method" OR "new methods" OR "new methodology" OR NAMs OR "Alternative data" OR "Novel data" OR "unique data" OR "alternate data" OR "in vitro data" OR "mechanistic" OR "computational method" OR "computational methods" OR "computational methodology" OR "Read Across" OR "Read-Across" OR transcriptomic* OR QIVIVE OR "Quantitative in vitro to in vivo extrapolation" OR IVIVE OR "in vitro to in vivo extrapolation"))

1.3.6. Hazard Search Strategies

Table 8. Hazard Search Terms.

Database	Hazard Search Strategy
PubMed	((effect[tiab] OR effects[tiab] OR endpoint[tiab] OR endpoints[tiab] OR morbid*[tiab] OR "mortal*[tiab] OR "dose-response"[tiab] OR "dose response"[tiab] OR "point of departure"[tiab] OR "in vitro"[tiab] OR "in vivo"[tiab] OR "in silico"[tiab] OR "animal model*[tiab] OR "alternative method*[tiab] OR "epidemiolog*[tiab] OR "human health"[tiab] OR "adverse outcome*[tiab] OR "developmental toxic*[tiab] OR "reproductive toxic*[tiab] OR "birth weight*[tiab] OR "congenital*[tiab] OR "neonatal disease*[tiab] OR "neonatal abnormal*[tiab] OR "terato*[tiab] OR "terata*[tiab] OR "pregnancy complication*[tiab] OR "miscar*[tiab] OR "fertility"[tiab] OR "blood pressure"[tiab] OR "pre-eclampsia"[tiab] OR "development*[tiab] OR "delay"[tiab] OR "milestone*[tiab] OR "pubescen*[tiab] OR "carcinogen*[tiab] OR "cancer*[tiab] OR "neoplasm*[tiab] OR "tumor*[tiab] OR "tumour*[tiab] OR "mutagen*[tiab] OR "cardiotox*[tiab] OR "cardiovascular disease*[tiab] OR "cogniti*[tiab] OR "digestive"[tiab] OR "endocrine"[tiab] OR "enzymes and coenzymes"[tiab] OR "eye disease*[tiab] OR "ocular"[tiab] OR "hepatox*[tiab] OR "chemical and drug induced liver injur*[tiab] OR "hormone*[tiab] OR "hormone substitute*[tiab] OR "hormone antagonist*[tiab] OR "immune system disease*[tiab] OR "immunotox*[tiab] OR "antibody"[tiab] OR "antibodies"[tiab] OR "vaccin*[tiab] OR "metabol*[tiab] OR "obes*[tiab] OR "hypertension"[tiab] OR "integumentary system"[tiab] OR "lipid"[tiab] OR "lipids"[tiab] OR "cholesterol"[tiab] OR "macromolec*[tiab] OR "mental disorder*[tiab] OR "psych*[tiab] OR

Database	Hazard Search Strategy
	"behavior"[tiab] OR "behaviour"[tiab] OR "nephrotox"[tiab] OR "kidney"[tiab] OR "kidney disease"[tiab] OR "nervous system disease"[tiab] OR "neurotox"[tiab] OR "nucleic acid"[tiab] OR "nucleosides"[tiab] OR "nucleotides"[tiab] OR "occupational disease"[tiab] OR "otorhinolaryngolog"[tiab] OR "stomatognathic"[tiab] OR "respir"[tiab] OR "skin"[tiab] OR "connective tissue"[tiab] OR "musculoskeletal"[tiab] OR "pathol"[tiab] OR "urogenital disease"[tiab] OR "testic"[tiab]) AND (toxic[tiab] OR toxif[tiab] OR hazard[tiab] OR hazards[tiab] OR risk[tiab] OR risks[tiab]))
Web of Science	("effect" OR "effects" OR "endpoint" OR "endpoints" OR "morbid" OR "mortal" OR "dose-response" OR "dose response" OR "point of departure" OR "in vitro" OR "in vivo" OR "in silico" OR "animal model" OR "alternative method" OR "epidemiolog" OR "human health" OR "adverse outcome" OR "developmental toxic" OR "reproductive toxic" OR "birth weight" OR "congenital" OR "neonatal disease" OR "neonatal abnormal" OR "terato" OR "terata" OR "pregnancy complication" OR "miscar" OR "fertility" OR "blood pressure" OR "pre-eclampsia" OR "development" OR "delay" OR "milestone" OR "pubescen" OR "carcinogen" OR "cancer" OR "neoplasm" OR "tumor" OR "tumour" OR "mutagen" OR "cardiotox" OR "cardiovascular disease" OR "cogniti" OR "digestive" OR "endocrine" OR "enzymes and coenzymes" OR "eye disease" OR "ocular" OR "hepatox" OR "chemical and drug induced liver injur" OR "hormone" OR "hormone substitute" OR "hormone antagonist" OR "immune system disease" OR "immunotox" OR "antibody" OR "antibodies" OR "vaccin" OR "metabol" OR "obes" OR "hypertension" OR "integumentary system" OR "lipid" OR "lipids" OR "cholesterol" OR "macromolec" OR "mental disorder" OR "psych" OR "behavior" OR "behaviour" OR "nephrotox" OR "kidney" OR "kidney disease" OR "nervous system disease" OR "neurotox" OR "nucleic acid" OR "nucleosides" OR "nucleotides" OR "occupational disease" OR "otorhinolaryngolog" OR "stomatognathic" OR "respir" OR "skin" OR "connective tissue" OR "musculoskeletal" OR "pathol" OR "urogenital disease" OR "testic") AND (toxic* OR toxif* OR "hazard" OR "hazards" OR risk OR risks)

2. Literature Screening Inclusion Criteria

Table 9 shows the Population, Exposure, Comparator, and Outcome (PECO) criteria that were used to determine inclusion/exclusion of references during literature screening. All primary and secondary data sources of PECO-relevant information were included as well as hazard, exposure, and risk assessments for the targeted PFAS.

Table 9. PECO Criteria for Inclusion.

PECO Component	Inclusion Criteria
Population	<p><u>Toxicity</u></p> <p><u>Human</u>: Individuals or population groups of any age or sex.</p> <p><u>Animal</u>: Mammalian species and targeted alternative species with established links to MOA for human relevance.</p> <p><u>NAM</u>: Experimental <i>in vitro</i>, <i>in silico</i>, or <i>ex vivo</i> data for any human or mammalian cells, tissues, organelles, or biomolecules. Experimental <i>in vitro</i> assays for genotoxicity and mutagenicity that use bacterial or animal cell cultures. Experimental <i>in vivo</i> data for</p>

PECO Component	Inclusion Criteria
	<p>alternative models when intended to inform an understanding of human health effects. Any QSAR or read-across estimate that could be applied to a human receptor.</p> <p><u>Exposure</u> Individuals or population groups of any age or sex. Occupational cohorts are generally excluded when they contain only exposure information (unless exposure is measured or estimated for tasks that could overlap with consumer exposures). Studies that characterize edible species are included: fish, shellfish, game animals Studies that characterize non-edible ecological/wildlife receptors are excluded.</p>
Exposure	<p><u>Toxicity and Exposure:</u> Administered, measured, estimated, or modeled exposure to one of the ten targeted PFAS. <u>Human:</u> Quantitative or qualitative exposures presented for the individual or population groups including measured or modeled environmental concentrations, measured or modeled human biomarker levels, modeled human doses, quantitative or qualitative exposure descriptors from epidemiological studies, measured or estimated human toxicokinetic/ADME values, and/or any quantitative or qualitative source characterization information (use descriptions, product testing) that can be used to connect sources to outcomes. <u>Animal:</u> Quantitative exposures/doses by any route of exposure for mammalian species. Measured or estimated intentional (spiked) exposures for toxicokinetic/ADME studies. <u>NAM:</u> Quantitative exposures/doses to cells, tissues, organelles or biomolecules. Quantitative doses administered by any route to certain non-mammalian alternative species. Modeled exposures and read-across estimates for a relevant PFAS for <i>in silico</i>, QSAR, and read-across assessments. <u>Considerations for Exposure:</u> Aggregate exposures including dietary and ambient exposures are included. Solely occupational exposures and tasks are generally excluded. The following media are generally included: indoor dust, indoor air, indoor surfaces, surface water, drinking water, groundwater, soil, ambient air, processed foods The following media are generally excluded: sediment, tree-bark, non-edible plants such as moss, wastewater effluent, sewage sludge</p>
Comparator	<p><u>Toxicity and Exposure</u> <u>Human:</u> Any quantitative or qualitative contextual information that compares one exposed human population group or individual to another that would enable evaluation of health effects or exposure scenarios. For example, control and comparison groups are presented for different exposure levels or by disease/health outcome status, variability is considered in some way for distribution of effects or disposition within or across the individuals or population groups. <u>Animal:</u> Comparison groups are presented for different dose levels (including control group), variability is considered in some way for distribution of effects or disposition within or across the animals or animal groups. <u>NAM:</u> Control groups used to quantify differences in responses to administered doses to cells or tissues. Comparison groups/variability considered in some way for alternative species.</p>
Outcome	<u>Toxicity</u>

PECO Component	Inclusion Criteria
	<p><u>Human, Animal</u>: Any quantitative or qualitative acute or chronic toxicity endpoint or information on toxicokinetics</p> <p><u>NAM</u>: Any molecular initiating event or step within Adverse Outcome Pathway that informs any cancer or non-cancer outcome. Any QSAR or read-across estimate relevant to toxicity or mechanism of toxicity.</p> <p><u>Exposure</u> Reported outcomes (health effects) are not required for exposure studies. The outcome of an exposure assessment is generally a reported concentration or dose. These metrics can be measured or modeled. Quantitative outcomes are preferred, but not required. Source characterization data on chemicals and/or products are also relevant because they can be used to model exposure concentrations and doses.</p>

MOA = ; mode of action; NAM = new approach methodology; QSAR = quantitative structure-activity relationship models; ADME = absorption, distribution, metabolism, and excretion.