Emissiergistratie

Watson: RWZI project meetdata

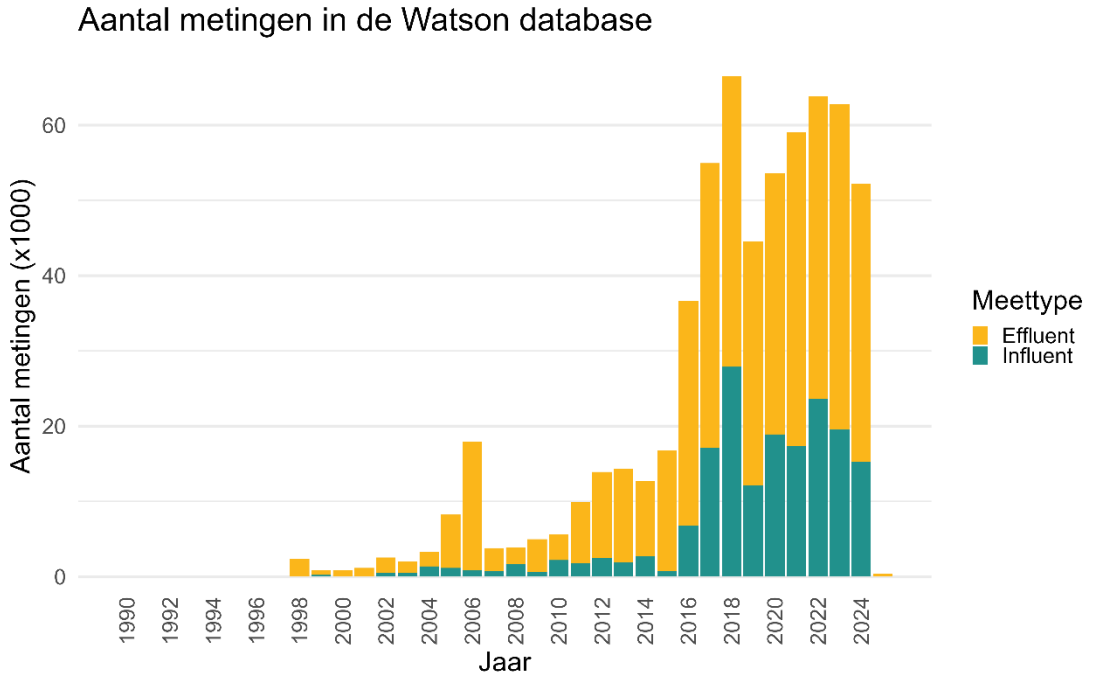
Versie augustus 2025. De gegevens van de Watson database zijn te vinden op (Watson: RWZI project meetdata | Emissieregistratie)

In opdracht van RIJKSWATERSTAAT – WVL
Uitgevoerd door DELTARES en AD ECO ADVIES

Inhoudsopgave

1 Inleiding

De Watson database is een uitgebreide verzameling meetdata van microverontreinigingen in influent en effluent van Nederlandse rioolwaterzuiveringsinstallaties (RWZI's). De database bevat ruim 600,000 meetgegevens van 332 RWZI's van een groot aantal geneesmiddelen, hormoonverstorende stoffen, bestrijdingsmiddelen, industriële stoffen en andere microverontreinigingen in afvalwater. De meetgegevens omvatten de periode van 1990 tot en met 2024, met enkele metingen uit 2025. Zoals figuur 1 illustreert, is het aantal metingen aanzienlijk toegenomen vanaf 1990. Inmiddels bevat de database meetgegevens van 1039 verschillende stoffen in influent en 1385 stoffen in effluent (voor meer gedetailleerde informatie per stof zie bijlage A).



Figuur 1. Aantal metingen in de Watson database in influent (groen) en effluent (oranje) van Nederlandse rioolwaterzuiveringsinstallaties in de periode 1990-2023

De meetgegevens zijn allen gebaseerd op doelstof analyses. Gegevens uit screeningonderzoek zijn niet opgenomen in de database, omdat deze kwantitatief veel minder betrouwbaar zijn. Daarnaast zijn uitsluitend data opgenomen die op de reguliere wijze zijn bemonsterd, namelijk debietsproportionele 24-uurs monsters. De Watson webapplicatie maakt het mogelijk om meetgegevens uit de database te halen. Daarbij kunnen diverse selecties worden gemaakt en een aantal berekeningen worden uitgevoerd.

1.1 Toepassing binnen de EmissieRegistratie

De meetgegevens uit de Watson database worden binnen de EmissieRegistratie gebruikt voor het afleiden van vrachten van stoffen in effluenten van RWZI's, en voor de berekening van het zuiveringsrendement. De vracht in het influent wordt berekend met emissiefactoren, d.w.z. een emissie in mg per inwoner. Hieruit wordt door vermenigvuldiging met het verwijderingsrendement de vracht in het effluent van de RWZI berekend. De emissies van metalen en van de nutriënten stikstof en fosfaat zijn gebaseerd op metingen die door het CBS worden aangeleverd en verwerkt. De emissiefactoren en verwijderingsrendementen van de overige stoffen zijn gebaseerd op schattingen uit de literatuur. Er worden echter ook steeds meer stoffen projectmatig gemeten en verzameld in de Watson-database. Indien mogelijk worden de vrachten en verwijderingsrendementen gebaseerd op metingen uit deze database.

1.2 Andere toepassingsmogelijkheden

De Watson-database bevat een schat aan gegevens van organische microverontreinigingen in influenten en effluenten van RWZI's. Deze gegevens zijn behalve voor de EmissieRegistratie ook waardevol voor waterbeheerders, vergunningverleners, beleidsmakers, adviseurs enzovoorts om tal van vragen te beantwoorden. Denk bijvoorbeeld aan:

- Welke stoffen en welke concentraties worden gevonden in influent en effluent?
- Hoe verhouden de effluentconcentraties zich tot de normen?
- Wat is het verwijderingsrendement van een stof en de variatie daarin?
- Wat is de effectiviteit van beleidsmaatregelen? Is het verbod op de toepassing van een stof bijvoorbeeld terug te zien in dalende concentraties in influent en effluent?
- Hoe doen de RWZI's in het beheersgebied het ten opzichte van andere RWZI's?
- Wat zijn de vrachten van stoffen naar het oppervlaktewater? Op welk ontvangend oppervlaktewater is de impact het grootst (met andere woorden wat zijn de hotspots)?
- Hoe verhoudt de emissie uit RWZI's zich tot de emissie uit andere bronnen?
- Weten we wellicht genoeg over een bepaalde stof om de meetinspanning te kunnen beperken en de aandacht op andere stoffen te richten?

1.3 Verleden van de Watson-database

De Watson-database is in het verleden opgezet door de Rijkswaterstaat en gevuld met monitoringdata van microverontreinigingen in verschillende RWS-onderzoeken, aangevuld met gegevens van regionale waterbeheerders. In 2013, 2015 en 2019 is de database aangevuld met influent- en effluent data uit verschillende onderzoeken van regionale waterbeheerders.

1.4 De update in 2025

In 2025 is de Watson-database grootschalig geüpdatet. De database is daarbij bijna drie keer zo groot geworden en bevat nu data van ruim 1400 stoffen. De data van de waterschappen is ontsloten middels een datadump uit Z-info, de zuiveringsdatabase die door 19 van de 21 waterschappen wordt gebruikt meetdata van RWZI’s in op te slaan. Deze datadump is aangevuld met data van de overige twee waterschappen, STOWA-onderzoeken, metingen in het kader de van E-PRTR en diverse andere onderzoeken. In deze update is de belasting op RWZI’s aangepast van inwonersequivalenten naar vervuilingseenheden (VE). De vervuilingseenheid is een maat voor de hoeveelheid zuurstofbindende stoffen in het afvalwater van één persoon per dag. Eén vervuilingseenheid komt overeen met 150 gram totaal zuurstofverbruik (TZV) per etmaal.

1.5 Toekomst van de Watson database

De Watson database is op dit moment gevuld met meetgegevens in influent en effluent tot en met 2024, met enkele metingen uit 2025. Er zijn plannen om een landelijke database op te zetten waarin meetdata van RWZI’s, maar op termijn mogelijk ook meer, centraal en toegankelijk opgeslagen kunnen worden. Hiervoor is een Programma van Eisen opgesteld. De verdere uitwerking daarvan en de mogelijke rol van de Watson database daarin is op het moment van schrijven nog niet duidelijk.

1.6 Referentie bij gebruik cijfers

Wanneer u gebruik maakt van de gegevens beschikbaar in de Watson-database kunt u op de volgende manier refereren.

“Deze gegevens zijn ontleend aan de Watson-database op dd-mm-yy”

2 Methodiek van dataverwerking

2.1 Selectie van microverontreinigingen

Aangezien de Watson database uitsluitend bedoeld is voor microverontreinigingen, zijn een aantal stoffen eruit gefilterd. Dit betreft onder andere algemene nutriënten, fysisch-chemische parameters en stoffen die niet in het Watson-systeem thuishoren (zie bijlage B).

2.2 Uitsluiting deelprocessen

De database bevat uitsluitend gegevens van reguliere RWZI's die hun effluent op het oppervlaktewater lozen. Onder 'effluent' wordt verstaan het water dat in de dagelijkse praktijk uiteindelijk in het oppervlaktewater terechtkomt. Meestal het effluent afkomstig van de nabezinktank. Indien een RWZI een aanvullende zuiveringsstap, zoals een zandfilter, heeft, zijn alleen de meetgegevens van het effluent na deze zuiveringsstap opgenomen. Resultaten van pilotonderzoeken, deelstroombehandelingen of andere tussenstappen in het zuiveringsproces zijn niet meegenomen. Dit geldt ook voor influentmetingen van deelstromen: standaard worden alleen metingen van het totale influent opgenomen. Alleen wanneer er geen metingen van het totale influent beschikbaar zijn, worden metingen van deelstromen toch meegenomen. Deze selectie is gemaakt op basis van expert judgement en bij onduidelijkheid in overleg met de betreffende waterbeheerder. Een overzicht van de uitgesloten deelprocessen is opgenomen in bijlage C.

2.3 Omrekening van concentratie-eenheden

In de Watson database staan eenheden die een concentratie bevatten. Deze concentratie eenheden zijn allen omgerekend naar µg/l.

2.4 Behandeling van metingen onder de rapportagegrens

Metingen onder de rapportagegrens worden op 0 µg/l gezet en de rapportagegrens is vastgelegd in een aparte kolom. Deze informatie is in de ruwe data opgeslagen, maar niet te ontsluiten vanuit de webapplicatie.

2.5 Gemiddelde bepaling van meervoudige metingen

Wanneer er meerdere metingen zijn voor dezelfde combinatie van stof, RWZI, datum en meettype, wordt de gemiddelde waarde berekend. Op deze manier wordt voorkomen dat in de Watsonapplicatie dubbele vrachten worden berekend als gevolg van 'duplo'-metingen. Dit betreft 4.509 records met een op deze wijze berekende gemiddelde concentratie.

2.6 Aanvulling van ontbrekende dagdebietwaarden

Voor de vrachtberekeningen in de Watsonapplicatie zijn dagdebieten nodig. Wanneer er een dagdebiet bekend is bij de meting, wordt deze waarde opgenomen in de database (434573 ecords). Dit is echter niet altijd het geval.

Om ontbrekende debietwaarden aan te vullen, wordt per RWZI en per datum gecontroleerd of er een debietwaarde ontbreekt. Als bijvoorbeeld het effluentdebiet ontbreekt, maar het influentdebiet voor dezelfde RWZI op die datum wel beschikbaar is, dan wordt deze influentwaarde gebruikt ter vervanging van het ontbrekende effluentdebiet, en vice versa. Op deze manier wordt per RWZI per dag altijd het best beschikbare debiet gebruikt. Deze aanvulling is uitgevoerd voor 22.076 records.

Indien het niet mogelijk is om het dagdebiet op basis van gemeten of vervangende waarden te bepalen, wordt gebruikgemaakt van de werkelijke hoeveelheid behandeld afvalwater per jaar

van de RWZI, gedeeld door 365. Deze gegevens zijn afkomstig uit de RwziBase (CBS, 2024a; CBS 2024b), een achtergrondbestand voor Rijkswaterstaat en de Emissieregistratie dat niet publiek raadpleegbaar is. Deze aanvulling is toegepast voor 161.333 records.

2.7 Aanvulling vervuilingseenheden

Voor iedere RWZI is het daggemiddelde aantal VE van het influent per jaar gebruikt als belastingmaat (CBS, 2024a; CBS, 2024b).

2.8 Actualisering van vervallen AQUO-codes

Vervallen en foutieve AQUO-codes werden geactualiseerd met geldige codes. Hiervoor werd het R-pakket *aquodom* gebruikt, dat toegang biedt tot de Aquo-domeintabellen via de Aquo-API (Van Tent, 2022).

3 Kwaliteitsborging

3.1 Vergelijking met de oude watson database

Bij vergelijking van de oude (vóór 2025) Watson-database met de Z-info-datadump blijkt dat slechts twee bronnen exact overeenkomen wanneer de datasets worden gekoppeld op RWZI, datum, stof, meettype en eenheid: *Geneesmiddelenanalyses 2017/2018, Aa en Maas* en *Data metalen Waterschap Zuiderzeeland 2015-2018*. Voor sommige parameters zijn er verschillen gevonden tussen Z-info en de huidige Watson-database. Deze zijn vervolgens aangepast:

- Mangaan (*Data metalen Waterschap Zuiderzeeland 2015-2018*): waarden in Z-info lagen een factor 1000 hoger dan in de oude Watson; de meer realistische oude Watson-waarden zijn aangehouden.
- Magnesium (*Data metalen Waterschap Zuiderzeeland 2015-2018* alleen RWZI Tollebeek): eveneens een factor 1000 hoger in Z-info; aangepast naar de meer realistische waarde uit de oude Watson.
- Debiet: waarden in Z-info weken af van de oude Watson; hierbij zijn de Z-info-waarden aangehouden.

3.2 Analyse van uitschieters

Voor de tijdreeksanalyse van de RWZI Watson-data is anomaliedetectie toegepast met behulp van het R-pakket tsaux (Breznitz, 2023). Deze functie is gebaseerd op de methode van Chen & Liu (1993) voor het identificeren van uitschieters in tijdreeksen. Met deze aanpak zijn plotselinge uitschieters in de concentratiegegevens gedetecteerd, die kunnen wijzen op meetfouten of uitzonderlijke lozingen. De gedetecteerde anomalieën zijn in dit stadium alleen geïnventariseerd en nog niet gecorrigeerd of verwijderd.

4 Toelichting berekeningswijze van de webapplicatie

De Watson-webapplicatie maakt het mogelijk om gegevens uit de database op verschillende manieren te rapporteren en te bewerken. Er kunnen drie typen rapportages worden gemaakt:

- Meetresultaten per stof
- Meetresultaten per stof per RWZI
- Zuiveringsrendement van een stof

Voor elke rapportage kan een specifieke periode worden ingesteld. De resultaten kunnen vervolgens worden geëxporteerd en als Excel-bestand worden gedownload.

4.1 Meetresultaten berekening

Bij de meetresultaten kan worden gekozen voor de concentratie, een vracht, of een vracht per vervuilingseenheid (VE). De VE is een maat voor de hoeveelheid zuurstofbindende stoffen in het afvalwater van één persoon per dag. Eén VE komt overeen met 150 gram totaal zuurstofverbruik (TZV) per etmaal.

De berekeningen van de meetresultaten leveren geaggregeerde meetgegevens op: minimum-, gemiddelde-, mediaan-, 90-percentiel- en maximumwaarden. Daarnaast worden het aantal metingen boven de rapportagegrens en het totaal aantal metingen weergegeven. De berekeningen kunnen per stof of per stof per RWZI worden gemaakt, waarbij gekozen kan worden voor de gehele periode of een specifiek rapportagejaar. Om vrachten en vrachten per VE te kunnen berekenen, worden respectievelijk formule 1 en 2 gebruikt.

Formule 1: $$vracht = concentratie \times debiet$$

Formule 2: $$\frac{Vracht}{VE} = concentratie \times \frac{debiet}{VE}$$

Waarbij:

- vracht = de hoeveelheid van een stof in het in mg/dag
- debiet = de hoeveelheid afvalwater in m3/dag
- concentratie = de gemeten concentratie van een stof in het in- of effluent in µg/L
- VE = vervuilingseenheden à 150 g TZV
- Vracht/VE = de hoeveelheid van een stof per vervuilingseenheid in mg/dag/VE

4.2 Zuiveringsrendementen berekening

Het zuiveringsrendement wordt berekend op basis van de gemeten concentraties van een stof in het influent en het effluent van een RWZI op dagen waarop beide metingen beschikbaar zijn (zie formule 3). De uitvoer van de webapplicatie bevat per dag:

- het berekende zuiveringsrendement,
- het dagdebiet
- het totaal aantal vervuilingseenheden (VE)
- de influent- en effluentconcentratie
- de specifieke vracht per VE voor zowel influent als effluent.
- een aanduiding of een meting onder de rapportagegrens ligt voor zowel influent als effluent.

Formule 3: $$Rendement = \frac{influentconcentratie - effluentconcentratie}{influentconcentratie} \times 100$$

waarbij:

- *zuiveringsrendement = de verhouding waarin de concentratie van een stof in het effluent lager is dan in het influent in %*
- *influentconcentratie* = de gemeten concentratie van een stof in het influent in µg/L
- *effluentgehalte* = de gemeten concentratie van een stof in het effluent in µg/L

5 Referenties

Breznitz, R. (2023). Tsaux: Auxiliary Time Series Functions. R package version 0.2.2. https://cran.r-project.org/package=tsaux

Centraal Bureau voor de Statistiek. (2024a). *Zuivering van afvalwater 1990–2023* [Dataset]. CBS Statlilne. Geraadpleegd van: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71476ned/table?ts=1754918686444

Centraal Bureau voor de Statistiek. (2024b). *CBS RwziBase 1990–2023: achtergrondbestand voor Rijkswaterstaat en Emissieregistratie* [Ongepubliceerde dataset]. CBS.

Chen, C., & Liu, L. (1993). Joint estimation of model parameters and outlier effects in time series. Journal of the American Statistical Association, 88(421), 284–297.

Van Tent, J. (2022). *Access to Aquo domaintables from R (Dutch)* [R package *aquodom* version 0.1.1]. CRAN. https://cran.r-project.org/web/packages/aquodom/aquodom.pdf

6 Bijlagen

A Overzicht stoffen en meetgegevens in Watson

Stof AQUO code	Effluent aantal metingen (percentage boven rapportagegrens)	Influent aantal metingen (percentage boven rapportagegrens)	Effluent concentratie in ug/l (min-max)	Influent concentratie in ug/l (min-max)	Effluent periode (min-max)	Influent periode (min-max)
1011DHOxcbzp	72 (100%)	71 (93%)	0.1 – 6.1	0 – 6.9	2015 – 2017	2015 – 2017
1112T4ClC2a	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
111TClC2a	315 (0.6%)	53 (0%)	0 – 0.2	0 – 0	1998 – 2021	2004 – 2022
1122T4ClC2a	149 (0%)	42 (0%)	0 – 0	0 – 0	2005 – 2021	2005 – 2022
112TClC2a	216 (0%)	41 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
11ClPF3OudS	209 (0%)	257 (0%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
11DC1yC2y2C1	33 (100%)		0.5 – 20		1998 – 1998	
11DClC2a	225 (0%)	41 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
11DClC2e	213 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
11DClC3a	115 (0%)	3 (0%)	0 – 0	0 – 0	2015 – 2021	2017 – 2018
11DClC3e	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
1234T4C1yBen	85 (0%)		0 – 0		2005 – 2009	
1234T4ClBen	79 (0%)	22 (0%)	0 – 0	0 – 0	2006 – 2018	2018 – 2019
1235T4C1yBen	85 (0%)		0 – 0		2005 – 2009	
123benztazl	1413 (99.7%)	1068 (99.5%)	0 – 280	0 – 370	2010 – 2025	2012 – 2024
123TC1yBen	95 (11.6%)		0 – 1		1998 – 2016	
123TclBen	228 (0.4%)	38 (0%)	0 – 0	0 – 0	2005 – 2021	2008 – 2022
123TClC3a	135 (0%)	34 (26.5%)	0 – 0	0 – 5.7	2005 – 2019	2017 – 2022
1245T4C1yBen	85 (0%)		0 – 0		2005 – 2009	
1245T4ClBen	1 (0%)		0 – 0		2017 – 2017	

124TC1yBen	154 (2.6%)	41 (17.1%)	0 – 1	0 – 2.2	1998 – 2019	2005 – 2022
124TclBen	545 (0.6%)	187 (0%)	0 – 1	0 – 0	2000 – 2024	2004 – 2024
12C4oxC2oxC2	1 (100%)		60 – 60		1998 – 1998	
12DBr3ClC3a	47 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
12DBrC2a	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
12DclBen	195 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
12DClC2a	313 (0%)	53 (20.8%)	0 – 0	0 – 0.9	2002 – 2021	2004 – 2022
12DClC2e	3 (100%)		0 – 0.4		2004 – 2007	
12DClC3a	217 (0.9%)	34 (0%)	0 – 0.8	0 – 0	2005 – 2021	2017 – 2022
12xyln	230 (2.2%)	75 (14.7%)	0 – 20	0 – 14	1990 – 2024	1990 – 2024
134DclFy3C1y	28 (7.1%)		0 – 0		2011 – 2017	
134DclFyurum	57 (1.8%)	30 (0%)	0 – 0	0 – 0	2011 – 2017	2016 – 2017
135Tazn246TA	66 (53%)	21 (4.8%)	0 – 20.2	0 – 2.1	2017 – 2024	2018 – 2024
135TC1yBen	151 (2%)	40 (15%)	0 – 0.4	0 – 0.6	2005 – 2019	2005 – 2022
135TclBen	228 (0.4%)	38 (0%)	0 – 0	0 – 0	2005 – 2021	2008 – 2022
13benztaz2sf	12 (0%)		0 – 0		2017 – 2017	
13DactBen	6 (0%)		0 – 0		2012 – 2012	
13DC2yBen	16 (0%)		0 – 0		2016 – 2016	
13DclBen	196 (1%)	35 (2.9%)	0 – 0.3	0 – 0.4	1998 – 2021	1990 – 2022
13DClC3a	153 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2019	2017 – 2022
13Dfygandne	25 (92%)	9 (88.9%)	0 – 5.8	0 – 590	2016 – 2022	2021 – 2022
13xyln	9 (33.3%)	1 (100%)	0 – 0.1	4.7 – 4.7	1990 – 2016	1990 – 1990
14DactBen	6 (0%)		0 – 0		2012 – 2012	
14DC2yBen	16 (0%)		0 – 0		2016 – 2016	
14DclBen	196 (12.8%)	36 (5.6%)	0 – 0.8	0 – 0.5	1998 – 2021	2005 – 2022
14Doxan	105 (8.6%)	72 (0%)	0 – 1300	0 – 0	2012 – 2024	2018 – 2024
14iC3yFy3C1y	10 (0%)		0 – 0		2016 – 2016	
14xyln	7 (42.9%)		0 – 0.3		1998 – 2005	
17aestDol	218 (1.8%)	171 (20.5%)	0 – 0	0 – 0	1999 – 2024	1999 – 2024
17bestDol	270 (7%)	228 (48.2%)	0 – 0.1	0 – 0.3	1999 – 2024	1999 – 2024
1C16e		1 (100%)		27 – 27		1990 – 1990
1C2yC10yBen	2 (100%)		0.5 – 0.7		1998 – 1998	
1C2yC9yBen	1 (100%)		0.7 – 0.7		1998 – 1998	
1C3ol2ClPO4	18 (100%)	7 (71.4%)	0.2 – 1	0 – 7	2016 – 2022	2021 – 2022
1C3yBen	136 (1.5%)	37 (10.8%)	0 – 0.4	0 – 1.2	1998 – 2019	1990 – 2022
1C3yC9yBen	4 (100%)		0.6 – 1		1998 – 1998	
1C4yC8yBen	7 (100%)		0.6 – 1		1998 – 1998	
1C5yC8yBen	1 (100%)		1 – 1		1998 – 1998	
1ClC3a	2 (0%)		0 – 0		2018 – 2019	
1Fy2C2ol	6 (100%)	1 (100%)	0.1 – 0.2	6 – 6	1998 – 1998	1990 – 1990
1heneicsfmt	2 (100%)		0.9 – 2		1998 – 1998	
1HoxNaf	1 (100%)		0 – 0		1990 – 1990	
1iC3y4C1yBen	43 (2.3%)	39 (82.1%)	0 – 0.7	0 – 29	1998 – 2019	2005 – 2022
1iCNC18a	1 (100%)		4 – 4		1998 – 1998	
1Nafsfzr	12 (0%)	12 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
224C9yfOxC2o	6 (0%)		0 – 0		2005 – 2005	

22C4oxC2ox02	3 (100%)		4 – 20		1998 – 1998	
22C4oxC2oxC2	1 (100%)	1 (100%)	0.3 – 0.3	19.1 – 19.1	1990 – 1990	1990 – 1990
22DBr2caacam	12 (0%)		0 – 0		2017 – 2017	
22DC1oxC3a	1 (100%)		0.2 – 0.2		1990 – 1990	
22DClC3a	9 (0%)	31 (0%)	0 – 0	0 – 0	2015 – 2019	2019 – 2022
22Dclppozr	16 (75%)	12 (66.7%)	0 – 0.1	0 – 0.2	2016 – 2021	2016 – 2021
2345T4ClFol	7 (0%)	5 (20%)	0 – 0	0 – 0	2005 – 2017	2005 – 2008
2346T4ClFol	17 (23.5%)	5 (20%)	0 – 1.5	0 – 0	2000 – 2017	2005 – 2008
234TclAn	2 (0%)		0 – 0		2009 – 2009	
234TclFol	23 (8.7%)	6 (33.3%)	0 – 0	0 – 0	2000 – 2017	2005 – 2008
2356T4ClAn	2 (0%)		0 – 0		2009 – 2009	
2356T4ClFol	9 (22.2%)	4 (0%)	0 – 0	0 – 0	2000 – 2017	2008 – 2008
235TclFol	22 (0%)	4 (0%)	0 – 0	0 – 0	2005 – 2017	2008 – 2008
236TclFol	24 (8.3%)	4 (0%)	0 – 13	0 – 0	2000 – 2017	2008 – 2008
23DclAn	2 (0%)		0 – 0		2009 – 2009	
23DclBencbzr	2 (100%)		8 – 60		1998 – 1998	
23DClC3e	145 (0%)		0 – 0		2005 – 2021	
23DclFol	29 (27.6%)	10 (70%)	0 – 0.1	0 – 0	2005 – 2017	2005 – 2008
23DclFyiCN	17 (100%)		0.5 – 6		1998 – 1999	
245T	342 (0%)	41 (0%)	0 – 0	0 – 0	2002 – 2022	2016 – 2022
245TclAn	2 (0%)		0 – 0		2009 – 2009	
245TclFol	23 (0%)	6 (33.3%)	0 – 0	0 – 0.1	2005 – 2017	2005 – 2008
245TP	37 (0%)	22 (0%)	0 – 0	0 – 0	2002 – 2020	2018 – 2020
246TbrFol	117 (6.8%)	115 (2.6%)	0 – 0.2	0 – 0.6	2012 – 2018	2012 – 2019
246TclAn	2 (0%)		0 – 0		2009 – 2009	
246TclFol	66 (86.4%)	15 (86.7%)	0 – 0.2	0 – 0.1	2000 – 2017	2004 – 2008
24D	562 (18.5%)	117 (11.1%)	0 – 3.4	0 – 1.1	2002 – 2025	2004 – 2024
24DB	324 (0.9%)	45 (0%)	0 – 0.1	0 – 0	2002 – 2022	2018 – 2022
24DC1yFol	46 (0%)		0 – 0		2015 – 2016	
24DclAn	2 (0%)		0 – 0		2009 – 2009	
24DclFol	34 (70.6%)	10 (100%)	0 – 0.1	0 – 0.6	2006 – 2016	2005 – 2006
24DDD	679 (5.9%)	278 (8.3%)	0 – 0	0 – 0.2	2000 – 2024	2002 – 2024
24DDE	654 (2.9%)	277 (2.9%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
24DDT	1104 (1%)	277 (2.2%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
24DNO2Fol	41 (2.4%)	22 (0%)	0 – 0	0 – 0	2005 – 2020	2018 – 2020
24DP	155 (2.6%)	47 (4.3%)	0 – 0.1	0 – 4	2003 – 2022	2007 – 2022
25811T4OaC12	140 (1.4%)	94 (3.2%)	0 – 0	0 – 0.2	2016 – 2023	2017 – 2023
25DC1yFol	36 (0%)		0 – 0		2015 – 2015	
25DCl6NO2An	14 (0%)		0 – 0		2012 – 2017	
25DclAn	2 (0%)		0 – 0		2009 – 2009	
25DclFol	10 (0%)		0 – 0		2016 – 2016	
26DC1yFol	36 (0%)		0 – 0		2015 – 2015	
26DCl4NO2An	19 (0%)	22 (0%)	0 – 0	0 – 0	2009 – 2020	2018 – 2020
26DclAn	2 (0%)		0 – 0		2009 – 2009	
26DclBenAd	294 (45.6%)	100 (5%)	0 – 0.4	0 – 0.3	2004 – 2024	2004 – 2024
26Dclbenzzr	12 (16.7%)	8 (25%)	0 – 0	0 – 0.1	2016 – 2017	2016 – 2017

26DclFol	70 (77.1%)	15 (80%)	0 – 0.8	0 – 0.1	1998 – 2017	2005 – 2008
26DttC4y14be	3 (100%)		0.5 – 9		1998 – 1998	
26xyldne	10 (0%)		0 – 0		2016 – 2016	
2Aoactfnn	22 (13.6%)		0 – 0.1		2011 – 2016	
2benztazetol	28 (0%)		0 – 0		2016 – 2017	
2C1ox2C1yC4a	1 (0%)		0 – 0		2017 – 2017	
2C1ox4NO2Fol	2 (100%)		0.7 – 2		1998 – 1998	
2C1oxAn	1 (100%)		0.8 – 0.8		1998 – 1998	
2C1y2Hitaz3o	12 (0%)		0 – 0		2017 – 2017	
2C1ybztazl	5 (100%)		1.2 – 6		2016 – 2016	
2C1yC3ol	2 (0%)		0 – 0		2018 – 2019	
2C1ytobztazl	18 (100%)		0.1 – 3		1990 – 2016	
2C2ox2C1yC3a	118 (3.4%)	3 (0%)	0 – 1.8	0 – 0	2012 – 2021	2017 – 2018
2C2y1C6ol	1 (100%)	1 (100%)	0.2 – 0.2	5 – 5	1990 – 1990	1990 – 1990
2C2yC6y4C1ox	171 (3.5%)	118 (96.6%)	0 – 0	0 – 24	2018 – 2022	2018 – 2022
2C2yC6yDFyPO	11 (90.9%)		0 – 0.7		2010 – 2010	
2C2yFol	36 (0%)		0 – 0		2015 – 2015	
2C2yid15DC1y	125 (9.6%)		0 – 0.3		2011 – 2015	
2C2yTol	88 (1.1%)		0 – 0.2		2005 – 2009	
2C3ol		2 (0%)		0 – 0		2018 – 2019
2C3y2C7eal	1 (100%)		0.6 – 0.6		1998 – 1998	
2C3yC7azrC1y	1 (100%)		0.7 – 0.7		1998 – 1998	
2C4ol		2 (0%)		0 – 0		2018 – 2019
2C4on	5 (0%)	2 (0%)	0 – 0	0 – 0	2018 – 2018	2018 – 2019
2C4oxC2ol	1 (100%)		8 – 8		1990 – 1990	
2C5on	5 (0%)		0 – 0		2018 – 2018	
2C6ol	1 (100%)	1 (100%)	8.7 – 8.7	9.1 – 9.1	1990 – 1990	1990 – 1990
2C6on	5 (0%)		0 – 0		2018 – 2018	
2C8y2Hitaz3o	12 (0%)		0 – 0		2017 – 2017	
2ClAn	2 (0%)		0 – 0		2009 – 2009	
2ClFol	22 (0%)	6 (33.3%)	0 – 0	0 – 0.4	2005 – 2017	2005 – 2008
2ClTol	49 (0%)	34 (0%)	0 – 0	0 – 0	2006 – 2019	2017 – 2022
2fenOx1C3ol	1 (100%)	1 (100%)	0.2 – 0.2	5.4 – 5.4	1990 – 1990	1990 – 1990
2fenOxC2ol	97 (96.9%)		0 – 4.1		1998 – 2017	
2FyAoC2ol	1 (100%)		4 – 4		1998 – 1998	
2FyFol	50 (2%)	40 (27.5%)	0 – 0.6	0 – 20	2006 – 2017	2004 – 2017
2Hoxatzne	22 (0%)		0 – 0		2011 – 2016	
2Hoxbenztazl	18 (0%)		0 – 0		2016 – 2016	
2Hoxibpfn	147 (61.9%)	153 (98.7%)	0 – 4	0 – 59	2016 – 2023	2016 – 2020
2Nafsfzr	12 (0%)	12 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
2NO2Fol	16 (0%)		0 – 0		2016 – 2016	
2Oxepnn		1 (100%)		3.6 – 3.6		2018 – 2018
2PFC6yC2a1sf	641 (50.9%)	583 (58%)	0 – 4.2	0 – 7.3	2018 – 2024	2018 – 2024
2t4tDcdeal	1 (100%)		2 – 2		1998 – 1998	
2ttC4y4C1oxF	2 (100%)	1 (100%)	0.7 – 1.8	1.2 – 1.2	1990 – 1998	1990 – 1990
345TclAn	2 (0%)		0 – 0		2009 – 2009	

345TclFol	27 (22.2%)	6 (33.3%)	0 – 0	0 – 0	2000 – 2017	2006 – 2008
34C1yeDoxafA	125 (26.4%)		0 – 0.3		2011 – 2015	
sdsf34C1yeDoxmaf	125 (100%)		0.1 – 6.3		2011 – 2015	
34DC1yFol	36 (0%)		0 – 0		2015 – 2015	
34DClAn	2 (0%)		0 – 0		2009 – 2009	
34DClBencbzr	1 (100%)		9 – 9		1998 – 1998	
34DClFol	25 (12%)	7 (42.9%)	0 – 0	0 – 0	2005 – 2017	2005 – 2008
35DClAn	2 (0%)		0 – 0		2009 – 2009	
35DClFol	22 (0%)	5 (20%)	0 – 0	0 – 0	2005 – 2017	2005 – 2008
37DC1y17C8aD	1 (100%)		2 – 2		1998 – 1998	
3C1ox2C4ol	1 (100%)		1 – 1		1998 – 1998	
3C1yC5azr	1 (100%)		2 – 2		1998 – 1998	
3C2y4C1yprl2	5 (100%)		0.5 – 3		1998 – 1998	
3C2yFol	103 (3.9%)		0 – 0.4		1998 – 2015	
3C2yTol	90 (4.4%)		0 – 0.7		1998 – 2009	
3Cl4C1yAn	2 (0%)		0 – 0		2009 – 2009	
3Cl4C1yFyura	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
3ClAn	2 (0%)		0 – 0		2009 – 2009	
3ClC3e	3 (0%)	2 (0%)	0 – 0	0 – 0	2006 – 2006	2018 – 2019
3ClFol	22 (0%)	4 (0%)	0 – 0	0 – 0	2005 – 2017	2008 – 2008
3ClTol	3 (0%)		0 – 0		2006 – 2006	
3Fyoazldne	1 (100%)		8 – 8		1998 – 1998	
44DDD	1105 (1.3%)	278 (2.9%)	0 – 6.8	0 – 0	2000 – 2024	2002 – 2024
44DDE	836 (2.6%)	237 (19.4%)	0 – 0	0 – 0	2002 – 2024	2002 – 2024
44DDT	1108 (2.2%)	278 (3.2%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
45DCl2C8y2Hi	12 (0%)		0 – 0		2017 – 2017	
4C1oxbzAh	1 (100%)		0.8 – 0.8		1998 – 1998	
4C1y1Hbztazl	35 (100%)	30 (100%)	0.1 – 1.2	0.2 – 0.8	2016 – 2017	2016 – 2017
4C1y2C5on	23 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2018	2018 – 2019
4C2y1ot3ol	1 (100%)		1 – 1		1998 – 1998	
4C2yTol	89 (2.2%)		0 – 0.6		1998 – 2009	
4C4oxFol	1 (100%)		0 – 0		1990 – 1990	
4C8yFol	34 (0%)	32 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
4C9yFol	578 (0.9%)	170 (11.2%)	0 – 0.3	0 – 21	2005 – 2024	2004 – 2024
4Cl2C1yAn	2 (0%)		0 – 0		2009 – 2009	
4Cl3C1yFol	14 (0%)	1 (0%)	0 – 0	0 – 0	2005 – 2017	2010 – 2010
4ClAn	143 (0%)	33 (0%)	0 – 0	0 – 0	2005 – 2022	2010 – 2022
4ClFol	23 (4.3%)	7 (57.1%)	0 – 0.1	0 – 3.7	2005 – 2017	2005 – 2008
4ClTol	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
4CPA	301 (2%)	33 (0%)	0 – 1.2	0 – 0	2005 – 2022	2018 – 2022
4formAoatprn	27 (96.3%)	16 (0%)	0 – 0.2	0 – 0	2023 – 2024	2023 – 2024
4NO2DC1yAn	1 (100%)		0.5 – 0.5		1998 – 1998	
4NO2Fol	2 (100%)		0 – 0.1		2010 – 2010	
4ttC8yFol	590 (6.3%)	184 (14.1%)	0 – 5.5	0 – 12.9	1997 – 2024	1997 – 2024
5bcholet3on	128 (100%)		0 – 40		1998 – 1999	
5C1y1Hbztazl	35 (100%)	30 (100%)	0.1 – 0.8	0.2 – 1.2	2016 – 2017	2016 – 2017

5choletne	29 (100%)		0 – 2.3		1998 – 1998	
5Cl2C1y2Hita	12 (0%)		0 – 0		2017 – 2017	
5S1C1y53prdn	9 (22.2%)	9 (55.6%)	0 – 3.2	0 – 5	2021 – 2022	2021 – 2022
6oMactmfne	125 (12.8%)		0 – 0.1		2011 – 2015	
9C16ezr	1 (100%)		0.6 – 0.6		1998 – 1998	
9C18eal	12 (100%)		1 – 9		1998 – 1998	
9-Cl-PF3ONS	209 (0%)	294 (0%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
abmtne	210 (1.4%)	87 (1.1%)	0 – 0.2	0 – 0.2	2004 – 2024	2008 – 2024
aC1ysrn	103 (0%)		0 – 0		2005 – 2016	
acAh	34 (0%)		0 – 0		2019 – 2019	
acbzlSC1y	38 (0%)		0 – 0		2020 – 2024	
acdne	68 (1.5%)	26 (3.8%)	0 – 0.1	0 – 0.1	2007 – 2024	2010 – 2024
aclntl	36 (0%)		0 – 0		2015 – 2015	
AcNe	1560 (10.8%)	687 (55.5%)	0 – 130	0 – 2.7	2002 – 2024	2002 – 2024
acnfn	588 (0.2%)	168 (1.8%)	0 – 0	0 – 0.9	2011 – 2025	2017 – 2024
AcNy	1388 (5.8%)	528 (9.3%)	0 – 1.1	0 – 1.5	2005 – 2024	2011 – 2024
acpmtn	141 (0.7%)	27 (0%)	0 – 0.1	0 – 0	2006 – 2018	2010 – 2017
acqncl	6 (0%)		0 – 0		2011 – 2011	
acsfmeK	258 (64.3%)	177 (66.7%)	0 – 89	0 – 10000	2010 – 2024	2015 – 2024
actfnn		1 (100%)		0.5 – 0.5		1990 – 1990
actmpd	404 (7.9%)	110 (3.6%)	0 – 0.1	0 – 0.1	2010 – 2024	2010 – 2024
actn	5 (0%)	2 (0%)	0 – 0	0 – 0	2018 – 2018	2018 – 2019
actntl	16 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2016	2018 – 2019
actsfmtozl	180 (8.9%)	183 (99.5%)	0 – 0.1	0 – 2	2016 – 2020	2016 – 2020
ADBl	28 (7.1%)	12 (0%)	0 – 1.1	0 – 0	2016 – 2023	2021 – 2023
ADONA	70 (2.9%)	160 (2.5%)	0 – 0	0 – 0	2023 – 2024	2021 – 2024
aedsfn	1136 (3.6%)	256 (3.1%)	0 – 0	0 – 0	2000 – 2024	2004 – 2024
Ag	2584 (17.8%)	874 (57.6%)	0 – 12	0 – 10	2006 – 2024	2004 – 2024
aHCH	1037 (4%)	245 (5.3%)	0 – 0	0 – 0	2005 – 2024	2007 – 2024
AHMl	28 (0%)	12 (0%)	0 – 0	0 – 0	2016 – 2023	2021 – 2023
AHTN	28 (42.9%)	12 (100%)	0 – 1.6	0.1 – 0.9	2016 – 2023	2021 – 2023
Al	4567 (70.7%)	2109 (99.7%)	0 – 6200	0 – 34000	2004 – 2024	2004 – 2024
alCl	521 (0.4%)	147 (0%)	0 – 0	0 – 0	2005 – 2024	2004 – 2024
alDcb	422 (0%)	134 (0%)	0 – 0	0 – 0	2005 – 2024	2010 – 2024
alDcsfn	318 (0.6%)	122 (0.8%)	0 – 0.1	0 – 0	2005 – 2024	2010 – 2024
alDcSO	203 (0%)	52 (0%)	0 – 0	0 – 0	2011 – 2024	2016 – 2020
aldn	1086 (2.3%)	254 (2.4%)	0 – 0	0 – 0	2000 – 2024	2004 – 2024
alfzsn	11 (100%)		0 – 0		2010 – 2010	
alltn	136 (0%)	22 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2020
alncb	28 (0%)		0 – 0		2015 – 2018	
alpzlm	11 (0%)		0 – 0		2010 – 2010	
amdsfrn	278 (0%)	87 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
amdTzinzr	1009 (14.3%)	742 (7.4%)	0 – 5.9	0 – 7.3	2005 – 2024	2005 – 2024
amfAe		125 (100%)		0.1 – 1.9		2011 – 2015
amodne	133 (0%)	138 (0.7%)	0 – 0	0 – 0	2017 – 2020	2017 – 2020
AMPA	599 (89.6%)	291 (91.8%)	0 – 28	0 – 15	2001 – 2025	2001 – 2024

ampclne	2 (0%)		0 – 0		2010 – 2010	
amsbm	129 (0%)	34 (0%)	0 – 0	0 – 0	2016 – 2024	2018 – 2020
amspde	1180 (58.1%)	902 (42.7%)	0 – 1.3	0 – 1.9	2016 – 2025	2016 – 2024
amtdne	10 (20%)	10 (10%)	0 – 0.1	0 – 0	2021 – 2022	2021 – 2022
amtn	224 (0.4%)	28 (0%)	0 – 0	0 – 0	2005 – 2024	2018 – 2022
amttdn	193 (0%)	51 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2024
amttlne	11 (0%)		0 – 0		2010 – 2010	
amxclne	355 (38.3%)	340 (29.1%)	0 – 4.5	0 – 37	2007 – 2024	2007 – 2024
An	1 (100%)	1 (100%)	0.1 – 0.1	0.3 – 0.3	1999 – 1999	1990 – 1990
anHertmcne	9 (77.8%)	9 (66.7%)	0 – 3.1	0 – 1.2	2007 – 2008	2007 – 2008
ansl		1 (100%)		0 – 0		1990 – 1990
Ant	2171 (7%)	742 (53.8%)	0 – 9.8	0 – 2.5	2000 – 2024	2002 – 2024
antcnn	34 (0%)		0 – 0		2011 – 2017	
Aocb	10 (0%)		0 – 0		2016 – 2016	
Aofnzn	185 (2.7%)	154 (0%)	0 – 0	0 – 0	2005 – 2022	2008 – 2022
Aoprld	16 (6.2%)		0 – 0.1		2016 – 2016	
armt	10 (0%)		0 – 0		2016 – 2016	
As	10924 (73.4%)	2175 (81.8%)	0 – 35	0 – 140	2010 – 2024	2014 – 2024
asbt	2 (100%)		0 – 1		2007 – 2007	
aslm	16 (18.8%)		0 – 0.2		2016 – 2016	
asprne	49 (18.4%)	57 (77.2%)	0 – 59	0 – 90	2012 – 2020	2018 – 2020
asptm	32 (9.4%)	30 (6.7%)	0 – 0	0 – 0.3	2016 – 2017	2016 – 2017
ATCD	28 (42.9%)	12 (91.7%)	0 – 5.3	0 – 2.2	2016 – 2023	2021 – 2023
atnll	620 (72.6%)	525 (74.3%)	0 – 1.5	0 – 6.2	2007 – 2024	2007 – 2024
ATTl	25 (0%)	12 (0%)	0 – 0	0 – 0	2010 – 2023	2021 – 2023
attn	10 (0%)		0 – 0		2016 – 2016	
atvttne	223 (29.6%)	190 (63.7%)	0 – 0.4	0 – 1.6	2010 – 2022	2016 – 2022
atzne	801 (13.9%)	217 (5.1%)	0 – 2.1	0 – 0.9	1998 – 2024	2002 – 2024
Au	12 (0%)	12 (0%)	0 – 0	0 – 0	2016 – 2016	2016 – 2016
azacnzl	136 (0%)	65 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
azdrtn	3 (0%)		0 – 0		2020 – 2020	
azltne	11 (0%)		0 – 0		2010 – 2010	
azmtfs	77 (0%)	26 (3.8%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
azoxsbn	646 (48.5%)	177 (29.9%)	0 – 2	0 – 0.9	2007 – 2025	2017 – 2024
azptn	20 (0%)		0 – 0		2016 – 2018	
azsfrn	19 (0%)		0 – 0		2016 – 2020	
aztmcne	1175 (86.1%)	1026 (71.3%)	0 – 17	0 – 26	2005 – 2024	2007 – 2024
B	383 (92.7%)	33 (90.9%)	0 – 716	0 – 435	1997 – 2024	1997 – 2017
Ba	2874 (95.8%)	980 (99.7%)	0 – 230	0 – 1100	2000 – 2024	2004 – 2024
BaA	1580 (13.4%)	716 (69%)	0 – 1	0 – 19	2000 – 2024	2002 – 2024
BaP	2156 (9.6%)	727 (58.9%)	0 – 0.9	0 – 19	1999 – 2024	2002 – 2024
bapOxT4ccne	6 (0%)		0 – 0		2012 – 2012	
BbF	2173 (11.2%)	738 (70.1%)	0 – 0.8	0 – 20	1999 – 2024	2002 – 2024
bClfvfs1	28 (0%)		0 – 0		2015 – 2018	
Be	2311 (0.3%)	816 (21%)	0 – 1.4	0 – 1.3	2009 – 2024	2011 – 2024
bedsfn	233 (2.1%)	73 (1.4%)	0 – 0	0 – 0	2002 – 2024	2007 – 2024

befbtAd	10 (0%)		0 – 0		2016 – 2016	
Ben	543 (2.2%)	82 (29.3%)	0 – 20	0 – 17	2000 – 2024	2004 – 2024
BenAh		1 (100%)		0.7 – 0.7		1990 – 1990
benDocb	6 (0%)		0 – 0		2011 – 2011	
benfn	82 (0%)		0 – 0		2015 – 2024	
benlxl	38 (0%)		0 – 0		2015 – 2018	
benlxlM	47 (0%)	18 (0%)	0 – 0	0 – 0	2016 – 2022	2020 – 2022
bensfrnC1y	3 (0%)		0 – 0		2020 – 2020	
bentavlcbiC3	151 (2%)	25 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2022
bentzn	556 (11.9%)	119 (10.9%)	0 – 1.6	0 – 0	2004 – 2025	2010 – 2024
benzadnne	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
benzC4yFt	168 (25%)	57 (31.6%)	0 – 5.4	0 – 16	1998 – 2023	1999 – 2023
benzcine	140 (0%)	122 (1.6%)	0 – 0	0 – 0.7	2015 – 2022	2016 – 2022
benzCl	61 (0%)		0 – 0		2017 – 2021	
benzDC1yC10y	12 (0%)		0 – 0		2017 – 2017	
benzDC1yC14y	12 (0%)		0 – 0		2017 – 2017	
benzDC1yC16y	12 (0%)		0 – 0		2017 – 2017	
benzDC1yC18y	12 (0%)		0 – 0		2017 – 2017	
benzDC1yC8yl	12 (0%)		0 – 0		2017 – 2017	
benzezr	86 (100%)		0 – 10		1998 – 1999	
benzntl		1 (100%)		0 – 0		1990 – 1990
benztazl	120 (87.5%)		0 – 11		1998 – 2016	
benzvdfpr	57 (12.3%)	7 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2020
benzyegnne	125 (100%)		0.4 – 6.4		2011 – 2015	
betxll	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
bezafbt	1031 (35%)	758 (42.1%)	0 – 0.3	0 – 2.2	2005 – 2024	2005 – 2024
bfnx	581 (0.3%)	169 (0%)	0 – 0	0 – 0	2010 – 2025	2010 – 2024
BghiPe	2180 (10.2%)	741 (54.8%)	0 – 0.8	0 – 13	1998 – 2024	2002 – 2024
bHCH	1013 (4.7%)	242 (4.5%)	0 – 0	0 – 0.5	2005 – 2024	2007 – 2024
BHT	234 (70.1%)	118 (90.7%)	0 – 4	0 – 3.7	1998 – 2022	2018 – 2022
Bi	16 (0%)	16 (68.8%)	0 – 0	0 – 6.3	2016 – 2017	2016 – 2017
bifnzt	147 (0.7%)	74 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2024
biftn	161 (0%)	22 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2020
biFy	28 (3.6%)		0 – 0		2015 – 2018	
biprdn	11 (27.3%)		0 – 0		2010 – 2010	
bis2C1oxC2yE	142 (2.8%)	94 (4.3%)	0 – 0.3	0 – 0.1	2012 – 2023	2017 – 2023
bisFolA	426 (67.1%)	342 (67.3%)	0 – 4.4	0 – 810	1999 – 2024	1999 – 2024
bisPFC10yPO4	421 (0.2%)	293 (1%)	0 – 0.1	0 – 0.4	2020 – 2024	2020 – 2024
bispll	163 (58.3%)	121 (53.7%)	0 – 0.4	0 – 0.7	2007 – 2022	2007 – 2022
bittnl	334 (8.7%)	120 (3.3%)	0 – 0.3	0 – 0.6	2003 – 2024	2008 – 2024
bixfn	256 (5.9%)	62 (0%)	0 – 0	0 – 0	2015 – 2024	2016 – 2022
BkF	2178 (7.7%)	735 (44.9%)	0 – 0.4	0 – 8.8	1999 – 2024	2002 – 2024
boscld	614 (34%)	174 (5.7%)	0 – 0.4	0 – 2.9	2007 – 2025	2010 – 2024
botzr		13 (0%)		0 – 0		2017 – 2021
Br	2759 (67.1%)	905 (54.9%)	0 – 13000	0 – 13000	2008 – 2024	2011 – 2024
BrBen	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022

BrClHAc	16 (0%)	12 (50%)	0 – 0	0 – 0.1	2016 – 2021	2016 – 2021
Brctne	11 (0%)		0 – 0		2010 – 2010	
BrDClHAc	4 (0%)	4 (0%)	0 – 0	0 – 0	2021 – 2021	2021 – 2021
BrHAc	15 (0%)	12 (0%)	0 – 0	0 – 0	2016 – 2021	2016 – 2021
BrO3	682 (5.6%)	10 (50%)	0 – 210	0 – 130	2017 – 2024	2018 – 2020
brodfcm	12 (0%)		0 – 0		2017 – 2017	
bromcl	259 (1.2%)	78 (0%)	0 – 0.1	0 – 0	2006 – 2024	2010 – 2024
bromcnzl	38 (5.3%)		0 – 0		2020 – 2024	
bromdoln	12 (16.7%)		0 – 0.1		2017 – 2017	
bromxnbtrt	57 (0%)	7 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2020
bronpl	12 (0%)		0 – 0		2017 – 2017	
BrOxnl	141 (1.4%)	39 (0%)	0 – 0	0 – 0	2006 – 2021	2018 – 2021
BrOxnOcnat	57 (0%)	7 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2020
Brpplt	147 (0.7%)	23 (8.7%)	0 – 0.1	0 – 0.3	2006 – 2024	2004 – 2020
bsitsrl	32 (90.6%)	22 (100%)	0 – 12	1.8 – 100	2007 – 2012	2007 – 2012
bupfzn	153 (2.6%)	77 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
bupofne	11 (0%)		0 – 0		2010 – 2010	
buppon	11 (100%)		0 – 0		2010 – 2010	
buprmt	318 (10.7%)	117 (0.9%)	0 – 0.3	0 – 0.1	2001 – 2024	2008 – 2024
butcbOxm	174 (0%)	49 (0%)	0 – 0	0 – 0	2011 – 2024	2016 – 2020
butcbOxmsfn	35 (0%)	30 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
butcbOxmSO	181 (0%)	52 (1.9%)	0 – 0	0 – 0	2015 – 2024	2016 – 2020
butCl	138 (0%)	22 (0%)	0 – 0	0 – 0	2006 – 2024	2018 – 2020
C10a	16 (0%)		0 – 0		2016 – 2016	
C10azr	111 (100%)		0 – 51		1998 – 1999	
c11C16ezr	1 (100%)		2 – 2		1998 – 1998	
C12aAdNNb2Ho	1 (100%)		15 – 15		1990 – 1990	
C12azr	137 (100%)		0.1 – 28		1998 – 1999	
C12C14akbzDC	12 (0%)		0 – 0		2017 – 2017	
c12DClC2e	218 (0.9%)	41 (0%)	0 – 2	0 – 0	1998 – 2021	2017 – 2022
C12ylTC1ylNH	12 (0%)		0 – 0		2017 – 2017	
c13DClC3e	195 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
C14azr	136 (100%)	1 (100%)	0.2 – 100	44 – 44	1998 – 1999	1990 – 1990
C14ylTC1ylNH	12 (0%)		0 – 0		2017 – 2017	
C16azr	110 (100%)	1 (100%)	0.1 – 55	19 – 19	1998 – 1999	1990 – 1990
C16ylTC1ylNH	12 (0%)		0 – 0		2017 – 2017	
C18azr	109 (100%)		0.1 – 24		1998 – 1999	
C1a		3 (100%)		4500 – 8600		2019 – 2019
C1al	36 (100%)		5.3 – 350		2015 – 2015	
C1ol		2 (0%)		0 – 0		2018 – 2019
C1oxCl	10 (0%)		0 – 0		2016 – 2016	
C1oxfnzde	331 (15.1%)	110 (5.5%)	0 – 0.4	0 – 0.3	2010 – 2024	2010 – 2024
C1y1Hbztazl	126 (100%)	94 (98.9%)	0.2 – 100	0 – 160	2016 – 2023	2017 – 2023
C1y4Bractact	1 (100%)	1 (100%)	0.1 – 0.1	0 – 0	2010 – 2010	2010 – 2010
C1yactt		2 (0%)		0 – 0		2018 – 2019
C1yAn	1 (100%)		1 – 1		1998 – 1998	

C1yazfs	394 (0.5%)	133 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2024
C1yBrfs	213 (0%)	82 (0%)	0 – 0	0 – 0	2006 – 2024	2010 – 2024
C1yClprfs	294 (0%)	108 (0%)	0 – 0	0 – 0	2008 – 2024	2008 – 2024
C1ydesFyClid	16 (6.2%)		0 – 0		2016 – 2016	
C1yDHjasmnt	2 (100%)		1 – 2		1998 – 1998	
C1ymsfrn	236 (0%)	85 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
C1ymtclt	21 (9.5%)		0 – 0		2006 – 2016	
C1yOxdmtn	286 (0.3%)	28 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2022
C1yprmfs	459 (4.1%)	127 (5.5%)	0 – 0	0 – 0.2	2005 – 2024	2007 – 2024
C1yprton	478 (0%)	149 (0.7%)	0 – 0	0 – 0.1	2002 – 2024	2007 – 2024
C1yTcsn	12 (0%)		0 – 0		2017 – 2017	
C1yttC4yEtr	145 (54.5%)	31 (90.3%)	0 – 42000	0 – 4700	2006 – 2021	2017 – 2019
C2a		3 (0%)		0 – 0		2019 – 2019
C2e		3 (0%)		0 – 0		2019 – 2019
C2OH		2 (0%)		0 – 0		2018 – 2019
C2oxsfrn	16 (0%)		0 – 0		2016 – 2016	
C2yactt		2 (0%)		0 – 0		2018 – 2019
C2yazfs	486 (0.2%)	110 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2024
C2yBen	547 (1.8%)	83 (19.3%)	0 – 20	0 – 31	1990 – 2024	1990 – 2024
C2yBrfs	213 (0%)	82 (0%)	0 – 0	0 – 0	2006 – 2024	2010 – 2024
C2yClprfs	475 (4%)	163 (1.8%)	0 – 0.1	0 – 0.4	2005 – 2024	2004 – 2024
C2yprmfs	10 (0%)		0 – 0		2016 – 2016	
C2yprton	461 (0.2%)	133 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2024
C3al	36 (0%)		0 – 0		2015 – 2015	
C4al	36 (0%)		0 – 0		2015 – 2015	
C4ol		2 (0%)		0 – 0		2018 – 2019
C4yactt		2 (0%)		0 – 0		2018 – 2019
C4yBen	47 (0%)	36 (5.6%)	0 – 0	0 – 2.9	2015 – 2019	1990 – 2022
C4yBensfAd	13 (100%)		0.5 – 2		1990 – 1998	
C5a	16 (0%)		0 – 0		2016 – 2016	
C6a	16 (0%)		0 – 0		2016 – 2016	
C6azr	87 (100%)		0.1 – 2.2		1998 – 1999	
C7a	16 (0%)		0 – 0		2016 – 2016	
C7azrC1yEsr	1 (100%)		0.7 – 0.7		1998 – 1998	
C8a	16 (0%)		0 – 0		2016 – 2016	
C8azr	69 (100%)		0.1 – 5.6		1998 – 1999	
C8yfOxplC2ox	13 (15.4%)	12 (16.7%)	0 – 0.5	0 – 24	1997 – 1999	1997 – 1999
C9a	16 (0%)		0 – 0		2016 – 2016	
C9yFol	94 (89.4%)	20 (85%)	0 – 10	0 – 60	1998 – 2007	2004 – 2007
CaCO3	13 (7.7%)	1 (100%)	0 – 13000	375000 – 375000	2023 – 2024	2017 – 2017
caffine	384 (51.6%)	185 (97.8%)	0 – 63	0 – 190	1990 – 2022	2005 – 2022
camfr		1 (100%)		0.6 – 0.6		1990 – 1990
campsfzr	13 (100%)		0.5 – 8		1998 – 1999	
candstn	1118 (98.2%)	833 (82.5%)	0 – 1.6	0 – 1.5	2018 – 2025	2018 – 2024
Canorg	4 (100%)		32000 – 39000		2023 – 2023	

captabne	135 (28.1%)	142 (43.7%)	0 – 0.1	0 – 0.9	2016 – 2020	2016 – 2020
captfl	2 (0%)		0 – 0		2017 – 2017	
captn	36 (0%)		0 – 0		2015 – 2018	
carbdx	140 (0%)	122 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
carbdzm	783 (50.2%)	247 (40.1%)	0 – 7.2	0 – 2.4	2001 – 2025	2002 – 2024
carbfrn	422 (4%)	139 (8.6%)	0 – 0.8	0 – 3.4	2005 – 2024	2004 – 2024
carbmzpn1011	31 (32.3%)	30 (30%)	0 – 18	0 – 6.1	2015 – 2017	2015 – 2017
carbmzpne	2120 (99.2%)	1611 (98%)	0 – 8.3	0 – 8.6	2005 – 2025	2005 – 2024
carbOxn		1 (100%)		0 – 0		2006 – 2006
carbrl	409 (1%)	130 (2.3%)	0 – 0	0 – 0	2006 – 2024	2006 – 2024
carbsfn	28 (0%)		0 – 0		2015 – 2018	
carbtAd	219 (6.4%)	49 (4.1%)	0 – 0.5	0 – 0.2	2010 – 2024	2006 – 2024
carftznC2y	341 (0%)	78 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2024
cCldn	182 (0.5%)	33 (0%)	0 – 0	0 – 0	2011 – 2022	2018 – 2022
Cd	10711 (20.4%)	2058 (46.7%)	0 – 0.9	0 – 5.8	2010 – 2024	2012 – 2024
Ce	16 (0%)	16 (100%)	0 – 0	0.3 – 3.7	2016 – 2017	2016 – 2017
cefcr	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
cefdxl	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
ceflxne	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
cefrxm	49 (2%)	26 (7.7%)	0 – 1	0 – 1	2007 – 2021	2007 – 2021
cefTaxn	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
ceftofr	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
cefxm	3 (0%)	3 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
cetrzne	11 (72.7%)	10 (70%)	0 – 0.3	0 – 0.3	2021 – 2023	2021 – 2022
cF16C10ezr	104 (0%)	225 (2.2%)	0 – 0	0 – 0	2023 – 2024	2021 – 2024
cfosfmdn	26 (0%)	22 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
cHCH	1291 (37.3%)	304 (23.4%)	0 – 1	0 – 0.2	1998 – 2024	2001 – 2024
chloftzn	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
chloratnlpl	105 (15.2%)	52 (5.8%)	0 – 0.4	0 – 0.6	2016 – 2024	2019 – 2024
chlozlnt	28 (0%)		0 – 0		2015 – 2018	
cholEsrol	132 (100%)		0 – 100		1998 – 1999	
cHpClepO	541 (0.2%)	247 (2.8%)	0 – 0	0 – 0	2001 – 2024	2016 – 2024
Chr	1553 (18.4%)	697 (74.5%)	0 – 0.6	0 – 11	1999 – 2024	2002 – 2024
cilzpl	11 (0%)		0 – 0		2010 – 2010	
cindnC2y	63 (1.6%)		0 – 0.3		2006 – 2009	
cipfxcne	954 (5.3%)	850 (18.5%)	0 – 3.9	0 – 19	2007 – 2024	2007 – 2024
citlpm	1196 (98.2%)	902 (94.5%)	0 – 0.4	0 – 1	2010 – 2025	2016 – 2024
ClAeT		9 (100%)		3.2 – 6.4		2001 – 2002
Clafncl	234 (2.1%)	189 (0.5%)	0 – 0.1	0 – 0.2	2005 – 2022	2007 – 2022
clartmcne	2004 (78.1%)	1535 (48.6%)	0 – 11	0 – 8.1	2005 – 2025	2005 – 2024
ClBen	214 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
Clbmrn	516 (0.2%)	87 (0%)	0 – 0	0 – 0	2005 – 2024	2008 – 2024
ClC2a	18 (0%)		0 – 0		2016 – 2016	
ClC2e	130 (0%)	49 (0%)	0 – 0	0 – 0	2005 – 2021	2005 – 2022
cldcne	102 (2.9%)	4 (25%)	0 – 0.1	0 – 0.1	2007 – 2018	2007 – 2007
Cldn	36 (0%)	4 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007

clemtne	11 (0%)		0 – 0		2010 – 2010	
clenbtrl	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
cletdm	69 (1.4%)	8 (0%)	0 – 1.1	0 – 0	2020 – 2022	2020 – 2022
Clfapr	15 (0%)		0 – 0		2023 – 2023	
Clfvfs	659 (0%)	171 (1.2%)	0 – 0	0 – 0.1	2005 – 2024	2004 – 2024
ClHAc	15 (0%)	11 (27.3%)	0 – 0	0 – 0.7	2016 – 2021	2016 – 2021
clhxdngcnt	12 (0%)		0 – 0		2017 – 2017	
Clidzn	697 (5.3%)	202 (2%)	0 – 5.7	0 – 1.4	2006 – 2025	2002 – 2024
clindmcne	980 (50.3%)	728 (7.7%)	0 – 0.4	0 – 4.3	2007 – 2024	2007 – 2024
clmqat	15 (13.3%)	2 (0%)	0 – 0.1	0 – 0	2017 – 2020	2020 – 2020
clodnfppgl	187 (0%)	33 (0%)	0 – 0	0 – 0	2006 – 2024	2010 – 2024
clofbnzr	260 (3.5%)	210 (0%)	0 – 0.2	0 – 0	2005 – 2021	2007 – 2021
clofbt	154 (3.2%)	146 (0%)	0 – 0.6	0 – 0	2005 – 2020	2008 – 2020
clompmne	11 (9.1%)		0 – 0		2010 – 2010	
clomzn	451 (2.9%)	117 (0.9%)	0 – 0.1	0 – 0.1	2010 – 2024	2010 – 2024
clonzpm	11 (0%)		0 – 0		2010 – 2010	
cloprld	303 (5%)	114 (4.4%)	0 – 0.5	0 – 0.2	2010 – 2025	2010 – 2024
cloqtcmxl	294 (0%)	48 (0%)	0 – 0	0 – 0	2006 – 2024	2010 – 2024
clotandne	194 (0%)	40 (0%)	0 – 0	0 – 0	2016 – 2024	2018 – 2022
clotmzl	491 (0.2%)	353 (0.3%)	0 – 0.2	0 – 0.3	2010 – 2024	2018 – 2024
cloxclne	169 (3%)	139 (0%)	0 – 0	0 – 0	2005 – 2022	2007 – 2022
ClOxnl	17 (0%)	22 (0%)	0 – 0	0 – 0	2018 – 2020	2018 – 2020
Cloxrn	222 (0%)	49 (0%)	0 – 0	0 – 0	2005 – 2024	2008 – 2024
clozpne	924 (72.7%)	794 (48.9%)	0 – 2.7	0 – 3.5	2009 – 2024	2009 – 2024
Clpfm	679 (13.4%)	209 (14.4%)	0 – 3	0 – 0.8	1998 – 2025	2005 – 2024
Clpmzne	11 (0%)		0 – 0		2010 – 2010	
Clptxne	11 (0%)		0 – 0		2010 – 2010	
Clsfrn	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
ClT4ccne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
cltDC1y	28 (0%)		0 – 0		2015 – 2018	
cltl	12 (0%)	8 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
Cltlnl	436 (0%)	117 (0%)	0 – 0	0 – 0	2005 – 2024	2010 – 2024
Cltlrn	633 (3.2%)	132 (3.8%)	0 – 1.2	0 – 0.2	1998 – 2024	2006 – 2024
clxlnl	129 (11.6%)	115 (94.8%)	0 – 0.3	0 – 11	2012 – 2018	2012 – 2019
CN	221 (51.1%)	128 (58.6%)	0 – 11	0 – 78	2009 – 2024	2020 – 2024
CNazne	192 (0%)	42 (0%)	0 – 0	0 – 0	2005 – 2024	2016 – 2020
Co	2845 (46.9%)	1030 (76.4%)	0 – 33	0 – 800	2005 – 2024	2004 – 2024
cocine		125 (100%)		0 – 8.7		2011 – 2015
codine	11 (100%)	125 (100%)	0 – 0.1	0 – 0.8	2010 – 2010	2011 – 2015
cortsn	142 (5.6%)	122 (17.2%)	0 – 3.4	0 – 4.6	2015 – 2022	2016 – 2022
coumttll	12 (0%)		0 – 0		2017 – 2017	
cpermtn	30 (0%)		0 – 0		2011 – 2018	
cpyrfnx	133 (0%)	81 (0%)	0 – 0	0 – 0	2015 – 2024	2017 – 2024
Cr	10783 (68.4%)	2100 (74.9%)	0 – 120	0 – 350	2010 – 2024	2012 – 2024
CrVI	2 (0%)	4 (0%)	0 – 0	0 – 0	2015 – 2015	2020 – 2020
Cs	16 (18.8%)	16 (43.8%)	0 – 0.4	0 – 0.5	2016 – 2017	2016 – 2017

CS2	126 (48.4%)		0 – 5600		1998 – 2009	
cT4Clvfs	144 (0%)	22 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2020
Cu	11298 (87.9%)	2149 (99.9%)	0 – 300	0 – 1700	2010 – 2024	2012 – 2024
cumfs	298 (0%)	29 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2022
cumn	213 (0.5%)	34 (0%)	0 – 0.1	0 – 0	2005 – 2021	2017 – 2022
cyanffs	28 (0%)		0 – 0		2015 – 2018	
cyanfs	28 (0%)		0 – 0		2015 – 2018	
cyatnlple	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
cyazfAd	348 (0.3%)	78 (1.3%)	0 – 0	0 – 0	2011 – 2024	2018 – 2024
cycat	306 (0%)	81 (3.7%)	0 – 0	0 – 0.1	2015 – 2025	2018 – 2024
cycC6a	22 (0%)		0 – 0		2006 – 2017	
cycC6e	16 (0%)		0 – 0		2016 – 2016	
cycC6on	5 (0%)		0 – 0		2018 – 2018	
cycffAd	388 (2.6%)	359 (1.1%)	0 – 0	0 – 0.1	2005 – 2023	2007 – 2022
cycmt	118 (65.3%)	61 (93.4%)	0 – 10.1	0 – 150	2015 – 2024	2015 – 2023
cycxdm	309 (0%)	105 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
cyffAd	85 (0%)	19 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2020
cyfmtfn	29 (3.4%)	27 (0%)	0 – 0.3	0 – 0	2016 – 2020	2016 – 2020
cyftn	157 (0%)	22 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2020
cyhltn	6 (0%)		0 – 0		2011 – 2011	
cymOanl	328 (0.3%)	93 (0%)	0 – 0.2	0 – 0	2010 – 2024	2010 – 2024
cypcnzl	400 (0.5%)	93 (0%)	0 – 0.1	0 – 0	2010 – 2024	2010 – 2024
cypdnl	419 (14.1%)	144 (2.1%)	0 – 0.1	0 – 0.1	2008 – 2025	2010 – 2024
cypHpdne	11 (0%)		0 – 0		2010 – 2010	
cypmtn	367 (0.3%)	83 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2024
cyrmzne	169 (1.2%)	84 (0%)	0 – 0.2	0 – 0	2010 – 2024	2010 – 2024
cytoat	28 (0%)		0 – 0		2015 – 2018	
daizine	32 (43.8%)	22 (100%)	0 – 6.8	0.5 – 41	2007 – 2012	2007 – 2012
damnzde	126 (0%)	65 (1.5%)	0 – 0	0 – 4.9	2010 – 2024	2010 – 2024
dapsn	194 (2.6%)	163 (3.7%)	0 – 0	0 – 1.4	2005 – 2022	2007 – 2022
Daznn	809 (29.8%)	197 (11.7%)	0 – 1.6	0 – 3.3	2001 – 2025	2006 – 2024
DBahAnt	1518 (4.7%)	619 (11%)	0 – 0.7	0 – 1.8	1998 – 2024	2002 – 2024
DBrC1a	49 (0%)	34 (0%)	0 – 0	0 – 0	2006 – 2019	2017 – 2022
DBrClC1a	136 (0.7%)	34 (0%)	0 – 1.3	0 – 0	2005 – 2019	2017 – 2022
DBrClHAc	4 (0%)	4 (0%)	0 – 0	0 – 0	2021 – 2021	2021 – 2021
DBrHAc	16 (0%)	12 (0%)	0 – 0	0 – 0	2016 – 2021	2016 – 2021
DC1oxC1a	3 (0%)		0 – 0		2006 – 2006	
DC1yDS	166 (75.9%)		0 – 10		1998 – 2016	
DC1yfAd	6 (0%)		0 – 0		2005 – 2005	
DC1yFt	163 (17.2%)	55 (54.5%)	0 – 1	0 – 6.2	1990 – 2023	1990 – 2023
DC1yNOAe	24 (0%)		0 – 0		2023 – 2023	
DC1yS	174 (57.5%)		0 – 1		1998 – 2009	
DC1ysAd	16 (81.2%)		0 – 0.3		2016 – 2016	
DC2yAe	2 (100%)		0 – 0		2010 – 2010	
DC2yEtr	18 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2016	2018 – 2019
DC2yFt	216 (36.1%)	81 (95.1%)	0 – 5	0 – 23.1	1990 – 2023	1990 – 2023

DC3yFt	89 (19.1%)	53 (18.9%)	0 – 1.4	0 – 6.7	1999 – 2023	1999 – 2023
DC4y3OHC4yPO	1 (100%)		0.5 – 0.5		1999 – 1999	
DC4yFt	205 (44.4%)	54 (70.4%)	0 – 2	0 – 51	1998 – 2023	1999 – 2023
DC4ySn	31 (9.7%)	13 (92.3%)	0 – 0	0 – 0	2002 – 2017	2004 – 2006
DC5yFt	45 (24.4%)	11 (18.2%)	0 – 2.1	0 – 47	2005 – 2023	2021 – 2023
DC6yFt	18 (0%)		0 – 0		2016 – 2016	
DC7yFt	52 (0%)	32 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
DC8yFt	152 (9.9%)	56 (16.1%)	0 – 12	0 – 2.4	1999 – 2023	1999 – 2023
Dcba	391 (8.2%)	74 (2.7%)	0 – 0.7	0 – 0.3	2005 – 2025	2016 – 2024
Dcbnl	400 (27%)	110 (6.4%)	0 – 0.2	0 – 0.2	2002 – 2024	2005 – 2024
DccC6yFt	44 (27.3%)	10 (50%)	0 – 1	0 – 0.2	1999 – 2016	1999 – 1999
DccC6ySn	1 (0%)		0 – 0		2005 – 2005	
DccPeDen	21 (0%)		0 – 0		2006 – 2016	
Dccvrne	11 (0%)		0 – 0		2010 – 2010	
Dcfande	346 (0%)	103 (0%)	0 – 0	0 – 0	2011 – 2024	2012 – 2024
Dcfl	172 (1.2%)	21 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2022
DClBrC1a	137 (1.5%)	34 (0%)	0 – 0.4	0 – 0	1998 – 2019	2017 – 2022
DClC1a	196 (4.6%)	53 (26.4%)	0 – 6.1	0 – 10	2005 – 2021	2004 – 2022
DClHAc	15 (73.3%)	11 (45.5%)	0 – 0.6	0 – 2.7	2016 – 2021	2016 – 2021
Dclofnc	2409 (98.1%)	1758 (94.5%)	0 – 2.7	0 – 3.4	2005 – 2025	2005 – 2024
Dcloxclne	170 (3.5%)	139 (0.7%)	0 – 0.3	0 – 0.2	2005 – 2022	2007 – 2022
DClppP	18 (11.1%)		0 – 0		2002 – 2010	
DClvs	687 (2.2%)	174 (0.6%)	0 – 0.3	0 – 0.2	2002 – 2024	2005 – 2024
DDBAC	12 (0%)		0 – 0		2017 – 2017	
DDMAC	12 (8.3%)		0 – 0.5		2017 – 2017	
DDPA	28 (3.6%)	12 (25%)	0 – 2.4	0 – 0.6	2016 – 2023	2021 – 2023
DEET	1107 (87.6%)	430 (93.7%)	0 – 7.2	0 – 33	1990 – 2025	2001 – 2024
DEHP	457 (24.1%)	108 (72.2%)	0 – 39	0 – 101.2	1990 – 2023	1990 – 2023
demtnO	8 (0%)		0 – 0		2002 – 2002	
demtSC1y	308 (0%)	104 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
demtSC1ysfn	111 (0%)	22 (0%)	0 – 0	0 – 0	2015 – 2020	2018 – 2020
desC1yDazpm	125 (44.8%)		0 – 0		2011 – 2015	
desC2yatzne	390 (0.5%)	120 (0.8%)	0 – 0	0 – 0.1	2005 – 2024	2016 – 2024
desC2ytC4yaz	628 (15.1%)	189 (4.8%)	0 – 0.4	0 – 0.3	2005 – 2025	2005 – 2024
desFyClidzn	16 (87.5%)		0 – 0.2		2016 – 2016	
desiC3yatzne	172 (0%)	44 (0%)	0 – 0	0 – 0	2015 – 2024	2016 – 2020
deslrtdne	1 (0%)		0 – 0		2023 – 2023	
desmdfm	263 (0%)	54 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
desmtn	394 (2.5%)	126 (1.6%)	0 – 0.6	0 – 0.5	2005 – 2024	2016 – 2024
Detfcb	144 (2.8%)	77 (0%)	0 – 0	0 – 0	2007 – 2024	2010 – 2024
dexmtsn	142 (0%)	122 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
Dfbzrn	344 (2.3%)	94 (2.1%)	0 – 0.1	0 – 0.4	2010 – 2024	2006 – 2024
Dffncn	587 (2.7%)	154 (0.6%)	0 – 0.1	0 – 0	2010 – 2025	2010 – 2024
Dfhdmne	11 (100%)		0 – 0		2010 – 2010	
Dfncm	12 (0%)		0 – 0		2017 – 2017	
Dfncnzl	703 (3.8%)	183 (4.4%)	0 – 2.9	0 – 2.2	2006 – 2025	2010 – 2024

Dfnxrn	205 (1%)	48 (0%)	0 – 0.1	0 – 0	2007 – 2024	2010 – 2024
DFyAe	1 (0%)		0 – 0		2017 – 2017	
DFySn	8 (0%)		0 – 0		2005 – 2017	
DHcEsrol	88 (100%)		0 – 56		1998 – 1999	
dHCH	615 (0%)	31 (6.5%)	0 – 0	0 – 0	2007 – 2024	2007 – 2022
DHmcnl	3 (100%)		20.8 – 30.8		2018 – 2018	
DiC3yEtr	131 (0%)	8 (0%)	0 – 0	0 – 0	2006 – 2021	2012 – 2019
DiC4yFt	186 (50%)	79 (73.4%)	0 – 20.3	0 – 18	1998 – 2023	1999 – 2023
dieldn	1086 (3.5%)	254 (3.5%)	0 – 0.7	0 – 0	2000 – 2024	2004 – 2024
dikglNa	10 (10%)		0 – 0.3		2016 – 2016	
diltazm	11 (100%)		0 – 0.1		2010 – 2010	
dlimnn	12 (100%)		0 – 0.1		2017 – 2017	
Dmfrn	10 (0%)		0 – 0		2016 – 2016	
DMST	291 (21.3%)	103 (1.9%)	0 – 0	0 – 0.1	2006 – 2024	2017 – 2024
DmtAd	346 (16.8%)	95 (14.7%)	0 – 1.7	0 – 0.7	2004 – 2024	2010 – 2024
Dmtat	648 (4.9%)	157 (1.9%)	0 – 0.5	0 – 2.1	2002 – 2024	2002 – 2024
DmtCl	154 (14.9%)	22 (0%)	0 – 0	0 – 0	2006 – 2024	2018 – 2020
DmTdzl	916 (2.6%)	672 (0%)	0 – 0.8	0 – 0	2013 – 2024	2014 – 2024
Dmtmf	630 (16.2%)	186 (8.6%)	0 – 2.1	0 – 5.5	2007 – 2025	2010 – 2024
dmtn	479 (0%)	143 (2.1%)	0 – 0	0 – 0	2008 – 2024	2008 – 2024
DmtnmdC2asfz	100 (0%)	22 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2020
DmtnmdP	374 (27%)	101 (17.8%)	0 – 0.8	0 – 2.1	2016 – 2025	2018 – 2024
Dmxsbne	35 (0%)		0 – 0		2024 – 2024	
DNOC	69 (4.3%)	27 (7.4%)	0 – 0.6	0 – 0.2	2001 – 2021	2010 – 2021
Dnsb	59 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2020	2018 – 2020
Dntb	31 (12.9%)		0 – 0		2005 – 2017	
dodmf	315 (4.1%)	134 (0%)	0 – 0.2	0 – 0	2008 – 2024	2008 – 2024
dodne	245 (0%)	86 (0%)	0 – 0	0 – 0	2015 – 2024	2017 – 2024
DONA	104 (8.7%)	134 (3.7%)	0 – 0	0 – 0	2020 – 2023	2020 – 2024
doxccne	18 (0%)	16 (18.8%)	0 – 0	0 – 0	2007 – 2016	2007 – 2016
DPMl	39 (79.5%)	12 (75%)	0 – 3.1	0 – 0.7	2010 – 2023	2021 – 2023
DpTolsfnC2ye	1 (100%)		1 – 1		1998 – 1998	
Dpyrdml	794 (16.4%)	651 (55.8%)	0 – 5	0 – 102	2009 – 2024	2009 – 2024
Dqt	100 (0%)	22 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2020
Dsftn	545 (0.4%)	111 (0%)	0 – 0.7	0 – 0	1999 – 2024	2008 – 2024
Dtann	76 (0%)	44 (0%)	0 – 0	0 – 0	2010 – 2021	2010 – 2021
DTPA	96 (16.7%)	79 (21.5%)	0 – 220	0 – 620	2012 – 2024	2021 – 2024
dulxtne	11 (0%)		0 – 0		2010 – 2010	
Durn	1462 (53.2%)	428 (24.3%)	0 – 34	0 – 3	1998 – 2025	2002 – 2024
Dy	16 (0%)	16 (6.2%)	0 – 0	0 – 0.3	2016 – 2017	2016 – 2017
edffs	26 (3.8%)	22 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
EDTA	119 (94.1%)	89 (93.3%)	0 – 4000	0 – 11000	2012 – 2024	2018 – 2024
emmtbzat	9 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2020	2020 – 2020
emmtn	10 (0%)		0 – 0		2016 – 2016	
endn	1080 (1.9%)	245 (2.4%)	0 – 0	0 – 0	2000 – 2024	2004 – 2024
endsfn	134 (12.7%)	5 (0%)	0 – 0	0 – 0	2005 – 2022	2021 – 2022

endsfSO4	204 (1.5%)	11 (0%)	0 – 0	0 – 0	2009 – 2022	2021 – 2022
enlpl	34 (29.4%)	26 (73.1%)	0 – 0	0 – 0.4	2012 – 2017	2016 – 2017
enrfxcne	16 (6.2%)	9 (11.1%)	0 – 0.6	0 – 0.4	2007 – 2016	2007 – 2008
enxcne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
epClhdne	3 (0%)		0 – 0		2006 – 2006	
epstn	11 (63.6%)		0 – 0.1		2010 – 2010	
EPTC	65 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
epxcnzl	521 (1.3%)	125 (0%)	0 – 0.1	0 – 0	2012 – 2025	2018 – 2024
Er	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
ertmcne	815 (16.1%)	714 (9.1%)	0 – 1.4	0 – 1.3	2005 – 2024	2005 – 2024
esfvlrt	424 (0.5%)	144 (1.4%)	0 – 0.2	0 – 0.3	2010 – 2024	2010 – 2024
esTol	226 (3.1%)	185 (79.5%)	0 – 0.1	0 – 0.4	2004 – 2024	2004 – 2024
ETCB	26 (7.7%)	10 (30%)	0 – 3.1	0 – 0.8	2016 – 2023	2021 – 2023
etcnzl	28 (0%)		0 – 0		2015 – 2018	
eTDazl	411 (0.7%)	146 (0.7%)	0 – 0	0 – 0.1	2008 – 2024	2007 – 2024
etdmrn	10 (0%)		0 – 0		2016 – 2016	
etfbt	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
etfmst	645 (23.1%)	171 (7%)	0 – 11	0 – 1.9	2003 – 2025	2004 – 2024
EtFOSA	73 (0%)	106 (0%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
EtFOSAA	503 (13.9%)	480 (29.4%)	0 – 0	0 – 0.1	2016 – 2024	2020 – 2024
etfpx	100 (0%)	7 (0%)	0 – 0	0 – 0	2015 – 2024	2019 – 2020
etfs	6 (0%)		0 – 0		2011 – 2011	
etnetDol	299 (1.3%)	248 (3.2%)	0 – 0	0 – 0	1999 – 2024	1999 – 2024
etngtl	11 (90.9%)		0 – 0		2010 – 2010	
etofcb	239 (0%)	82 (4.9%)	0 – 0	0 – 0	2006 – 2024	2006 – 2024
etofcbsfn	95 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
etofcbSO	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
eton	130 (0%)		0 – 0		2005 – 2016	
etpfs	687 (2.8%)	148 (4.7%)	0 – 0.1	0 – 0.2	2002 – 2025	2008 – 2024
etpl	28 (0%)		0 – 0		2015 – 2018	
etpsde	98 (0%)	93 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
etxcne	28 (0%)		0 – 0		2015 – 2018	
etxzl	91 (0%)	19 (0%)	0 – 0	0 – 0	2011 – 2024	2019 – 2020
Eu	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
F	827 (98.2%)	99 (79.8%)	0 – 148000	0 – 7700	2007 – 2024	2007 – 2023
famxdne	98 (0%)		0 – 0		2006 – 2024	
farnsl	102 (100%)		0.5 – 20		1998 – 1999	
Fe	4830 (97.8%)	2124 (100%)	0 – 310000	42 – 51400	2004 – 2024	2004 – 2024
FeII	4 (100%)	9 (100%)	190 – 320	780 – 5200	2023 – 2023	2023 – 2023
Fen	1713 (45.5%)	702 (89.9%)	0 – 52	0 – 26	1990 – 2024	1990 – 2024
fenamfs	288 (0%)	55 (0%)	0 – 0	0 – 0	2008 – 2024	2008 – 2024
fenarml	205 (1%)	22 (0%)	0 – 0	0 – 0	2006 – 2024	2018 – 2020
fenbcb	28 (0%)		0 – 0		2015 – 2018	
fenbcnzl	28 (0%)		0 – 0		2015 – 2018	

fenbdzl	3 (0%)		0 – 0		2010 – 2023	
fenbtSnO	6 (0%)		0 – 0		2005 – 2005	
fenClfs	6 (0%)		0 – 0		2012 – 2013	
fenfbnzr	51 (9.8%)	46 (26.1%)	0 – 0	0 – 0.1	2007 – 2017	2007 – 2017
fenfbt	235 (5.5%)	184 (4.9%)	0 – 1.9	0 – 11	2005 – 2022	2007 – 2022
fenhxAd	159 (13.8%)	79 (3.8%)	0 – 0.3	0 – 0.6	2007 – 2024	2010 – 2024
fenmdfm	322 (0%)	93 (1.1%)	0 – 0	0 – 0.2	2010 – 2024	2010 – 2024
fenmdn	304 (2.3%)	104 (1%)	0 – 0	0 – 0	2016 – 2025	2019 – 2024
feNO2ton	556 (0.2%)	110 (0%)	0 – 1	0 – 0	1998 – 2024	2008 – 2024
fenOxcb	368 (0.5%)	111 (0%)	0 – 0	0 – 0	2008 – 2024	2008 – 2024
fenpcoamd	6 (0%)	6 (0%)	0 – 0	0 – 0	2022 – 2022	2022 – 2022
fenpfn	87 (5.7%)	56 (3.6%)	0 – 0	0 – 0	2005 – 2016	2007 – 2016
fenppdn	347 (0.6%)	66 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
fenppmf	547 (6.8%)	188 (1.1%)	0 – 0	0 – 2.1	2010 – 2025	2006 – 2024
fenprAe	19 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2020	2020 – 2020
fenpratn	142 (0%)	22 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2020
fenprxmt	28 (0%)		0 – 0		2015 – 2018	
fenrn	152 (4.6%)	22 (0%)	0 – 0	0 – 0	2005 – 2024	2018 – 2020
fensfton	28 (0%)		0 – 0		2015 – 2018	
fentat	28 (0%)		0 – 0		2015 – 2018	
fentnl	11 (9.1%)		0 – 0		2010 – 2010	
fenton	436 (0%)	110 (0%)	0 – 0	0 – 0	2002 – 2024	2010 – 2024
fentoSO	28 (0%)		0 – 0		2015 – 2018	
fentrl	185 (2.7%)	154 (0%)	0 – 0.1	0 – 0	2005 – 2022	2008 – 2022
fenvlrt	128 (0%)	49 (2%)	0 – 0	0 – 0.4	2010 – 2018	2010 – 2017
fenxppPC2y	274 (0.7%)	28 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2022
fenzn	1071 (13%)	808 (7.7%)	0 – 10	0 – 2.1	2005 – 2024	2007 – 2024
fenzqn	14 (0%)		0 – 0		2015 – 2018	
fexfndne	11 (100%)		0.3 – 0.9		2010 – 2010	
fipndsfnl	12 (0%)		0 – 0		2017 – 2017	
fipnl	726 (66.1%)	292 (58.2%)	0 – 0.5	0 – 0.5	2006 – 2025	2017 – 2024
fipnsfn	12 (0%)		0 – 0		2017 – 2017	
Fle	1513 (16.3%)	691 (66.9%)	0 – 41	0 – 8.1	2001 – 2024	2002 – 2024
flecinde	11 (100%)		0 – 0.1		2010 – 2010	
floncmd	657 (11.6%)	217 (7.4%)	0 – 2.4	0 – 2.7	2010 – 2025	2010 – 2024
florfncl	142 (1.4%)	122 (0%)	0 – 0.1	0 – 0	2010 – 2022	2016 – 2022
flrtmn	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
Flu	2187 (29%)	713 (88.5%)	0 – 10	0 – 46	1990 – 2024	2002 – 2024
fluazfp	23 (0%)	5 (0%)	0 – 0	0 – 0	2011 – 2021	2020 – 2021
fluazfPC4y	358 (0.3%)	95 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2024
fluazfpP	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
fluaznm	302 (0%)	105 (0%)	0 – 0	0 – 0	2006 – 2024	2010 – 2024
flubDad	16 (6.2%)		0 – 0		2016 – 2016	
flucnzl	355 (62%)	331 (0.3%)	0 – 0.4	0 – 0.3	2010 – 2024	2022 – 2024
fludoxnl	91 (8.8%)	8 (0%)	0 – 0.2	0 – 0	2016 – 2022	2020 – 2022
flufnct	142 (24.6%)	51 (17.6%)	0 – 0.1	0 – 0.1	2010 – 2024	2010 – 2024

flufnzne	11 (0%)		0 – 0		2010 – 2010	
flumoxzn	172 (1.2%)	79 (0%)	0 – 0	0 – 0	2016 – 2024	2016 – 2024
flumqne	106 (1.9%)	93 (2.2%)	0 – 4	0 – 8.6	2010 – 2022	2016 – 2022
fluopclde	498 (25.9%)	101 (10.9%)	0 – 0.2	0 – 0.1	2011 – 2025	2018 – 2024
fluoprm	212 (48.1%)	63 (19%)	0 – 1	0 – 0.5	2016 – 2024	2019 – 2024
fluOxpmtl	63 (0%)	13 (15.4%)	0 – 0	0 – 0.3	2019 – 2024	2019 – 2022
fluoxsbn	154 (1.9%)		0 – 0.3		2012 – 2019	
fluoxtne	297 (6.7%)	277 (3.6%)	0 – 0.1	0 – 11	2010 – 2022	2017 – 2022
fluprdfrn	22 (72.7%)	7 (0%)	0 – 0.5	0 – 0	2019 – 2020	2019 – 2020
fluptxl	11 (0%)		0 – 0		2010 – 2010	
flurcl	27 (0%)	23 (4.3%)	0 – 0	0 – 4	2015 – 2021	2016 – 2021
flurOxpr	399 (10%)	106 (8.5%)	0 – 1.1	0 – 0.3	2004 – 2025	2018 – 2024
flurslm	457 (0.7%)	101 (0%)	0 – 0	0 – 0	2012 – 2025	2018 – 2024
flutanl	20 (0%)		0 – 0		2024 – 2024	
flutlnl	637 (22%)	183 (13.7%)	0 – 2.5	0 – 0.3	2002 – 2025	2002 – 2024
flutmde	11 (0%)		0 – 0		2010 – 2010	
fluxprxd	191 (39.8%)	40 (0%)	0 – 4.8	0 – 0	2015 – 2024	2018 – 2022
Fol	117 (17.9%)	1 (100%)	0 – 1.3	42.4 – 42.4	1990 – 2015	1990 – 1990
FolINDX	4 (0%)	64 (98.4%)	0 – 0	0 – 1500	2015 – 2016	2020 – 2024
folpt	4 (0%)		0 – 0		2015 – 2017	
fonfs	136 (0.7%)	22 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2020
forasfrn	122 (0%)	28 (0%)	0 – 0	0 – 0	2016 – 2024	2018 – 2022
fort	6 (0%)		0 – 0		2012 – 2013	
fosC2yAl	18 (0%)	12 (0%)	0 – 0	0 – 0	2011 – 2020	2020 – 2020
fosfmdn	312 (0%)	126 (0.8%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
fosln	145 (0%)	77 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
fostazt	352 (4.3%)	124 (3.2%)	0 – 0.6	0 – 0.1	2016 – 2025	2018 – 2024
FRD-902	35 (14.3%)		0 – 0		2024 – 2024	
FRD-903	462 (78.4%)	388 (81.7%)	0 – 2787.7	0 – 4172.8	2017 – 2024	2017 – 2024
ftalmde	166 (31.3%)	28 (60.7%)	0 – 0.1	0 – 0.4	2017 – 2024	2018 – 2022
furlxl	287 (0.7%)	100 (0%)	0 – 0.4	0 – 0	2005 – 2024	2008 – 2024
fursmde	1440 (94.1%)	1103 (73.9%)	0 – 5.2	0 – 10	2007 – 2025	2016 – 2024
furtocb	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
furzldn	193 (0%)	162 (0.6%)	0 – 0	0 – 1	2005 – 2022	2005 – 2022
FyC1yC2olAe	1 (100%)		8 – 8		1998 – 1998	
Ga	16 (0%)	16 (37.5%)	0 – 0	0 – 0.6	2016 – 2017	2016 – 2017
gabptne	1911 (98.6%)	1459 (97.9%)	0 – 32	0 – 24	2009 – 2025	2009 – 2024
Gd	39 (76.9%)	25 (92%)	0 – 0.6	0 – 0.7	2007 – 2017	2007 – 2017
Ge	16 (25%)	16 (68.8%)	0 – 0.3	0 – 1	2016 – 2017	2016 – 2017
gemctbne	98 (0%)	93 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
gemfbzl	373 (82%)	316 (91.1%)	0 – 4.6	0 – 4.1	2005 – 2023	2005 – 2021
gentsnzr	29 (0%)	23 (21.7%)	0 – 0	0 – 3	2015 – 2021	2016 – 2021
glibcmde	11 (0%)		0 – 0		2010 – 2010	
glimprde	11 (0%)		0 – 0		2010 – 2010	
glufsnt	174 (2.9%)	126 (13.5%)	0 – 0.4	0 – 0.5	2004 – 2024	2004 – 2024

glufsntNH4	48 (2.1%)	6 (0%)	0 – 0	0 – 0	2014 – 2022	2022 – 2022
glyfst	590 (81.4%)	279 (87.1%)	0 – 23	0 – 66	2001 – 2025	2001 – 2024
guanurum	855 (77.4%)	751 (24.4%)	0 – 105.6	0 – 516	2014 – 2024	2014 – 2024
HAc		15 (86.7%)		0 – 180000		2007 – 2021
halaxfnC1y	100 (0%)	22 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2020
halon1011	38 (0%)	3 (0%)	0 – 0	0 – 0	2015 – 2018	2017 – 2018
halOxfC2oxC2	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
halOxfp	171 (0%)	39 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2021
halOxfPC1y	220 (0%)	40 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2022
halprdl	11 (90.9%)		0 – 0		2010 – 2010	
HBCD	32 (90.6%)	5 (100%)	0 – 0	0 – 0	2001 – 2007	2007 – 2007
HCB	1177 (7.4%)	283 (9.2%)	0 – 0	0 – 0.1	2000 – 2024	2001 – 2024
HCltazde	1815 (91.6%)	1381 (78.3%)	0 – 19	0 – 85	2010 – 2025	2010 – 2024
heptnfs	486 (0.2%)	107 (0.9%)	0 – 0	0 – 0.2	2002 – 2024	2008 – 2024
hextazx	304 (0%)	105 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
Hf	16 (12.5%)	16 (25%)	0 – 3	0 – 6.4	2016 – 2017	2016 – 2017
Hg	11569 (23.6%)	2144 (70.3%)	0 – 13	0 – 4.3	2010 – 2024	2010 – 2024
HHCB	151 (98.7%)	127 (100%)	0 – 12	1.1 – 6.8	2010 – 2023	2012 – 2023
Ho	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
Hoxzne	11 (54.5%)		0 – 0		2010 – 2010	
HpCl	1209 (1.7%)	256 (2.3%)	0 – 0	0 – 0	2000 – 2024	2004 – 2024
H-PFC10asfzr	487 (29.2%)	480 (32.3%)	0 – 0	0 – 0.4	2020 – 2024	2020 – 2024
H-PFC12asfzr	431 (2.1%)	387 (17.8%)	0 – 0	0 – 0.2	2020 – 2024	2020 – 2024
H-PFC6asfzr	487 (2.5%)	480 (1%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
HPFHpA	3 (0%)	37 (0%)	0 – 0	0 – 0	2024 – 2024	2021 – 2024
H-PFUdA	3 (0%)	37 (0%)	0 – 0	0 – 0	2024 – 2024	2021 – 2024
HTl	18 (5.6%)	22 (0%)	0 – 0	0 – 0	2007 – 2020	2018 – 2020
HxC1yeT4Ae	33 (100%)	1 (100%)	0.5 – 14	15.4 – 15.4	2017 – 2018	2018 – 2018
HxClbtDen	604 (3.6%)	286 (2.8%)	0 – 0	0 – 0	2002 – 2024	2004 – 2024
HxClC2a	374 (0.3%)	192 (4.7%)	0 – 0	0 – 0.1	2002 – 2024	2018 – 2024
Hxznn	114 (0%)	28 (0%)	0 – 0	0 – 0	2011 – 2022	2016 – 2022
hymxzl	71 (0%)	26 (3.8%)	0 – 0	0 – 0.1	2010 – 2024	2010 – 2024
ibpfn	1192 (31.5%)	1044 (91.9%)	0 – 14	0 – 181	2005 – 2024	2005 – 2024
ibtzr		13 (0%)		0 – 0		2017 – 2021
iC3yantnlAd	77 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
iC4yBen	1 (0%)		0 – 0		2017 – 2017	
iClidzn	22 (0%)		0 – 0		2011 – 2016	
icrdn	15 (0%)		0 – 0		2023 – 2023	
idn	655 (3.5%)	254 (2.4%)	0 – 0	0 – 0	2000 – 2024	2004 – 2024
iffAd	320 (0.3%)	299 (0%)	0 – 0	0 – 0	2007 – 2022	2007 – 2022
ifrn		1 (100%)		0 – 0		1990 – 1990
imdcpd	799 (80.4%)	355 (62.5%)	0 – 1.5	0 – 2.6	2002 – 2025	2002 – 2024
imzll	653 (21.4%)	171 (23.4%)	0 – 0.2	0 – 1	2002 – 2025	2006 – 2024
imzmx	19 (0%)	2 (0%)	0 – 0	0 – 0	2016 – 2020	2020 – 2020

In	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
inda	18 (0%)	1 (100%)	0 – 0	0.1 – 0.1	2016 – 2016	1990 – 1990
inde		1 (100%)		0 – 0		1990 – 1990
indl	70 (12.9%)	1 (100%)	0 – 1.6	3.9 – 3.9	1998 – 2009	1990 – 1990
indmtcne	195 (3.1%)	163 (0%)	0 – 0	0 – 0	2005 – 2023	2007 – 2022
indxcb	382 (0.3%)	111 (1.8%)	0 – 0.1	0 – 0.1	2005 – 2024	2007 – 2024
lnP	2146 (10.1%)	717 (51.7%)	0 – 0.9	0 – 14	1998 – 2024	2002 – 2024
iOaftl	269 (0%)	48 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
iOxnl	190 (0%)	45 (0%)	0 – 0	0 – 0	2011 – 2022	2018 – 2022
ipcnzl	35 (0%)		0 – 0		2024 – 2024	
ipDon	438 (9.8%)	128 (2.3%)	0 – 1.3	0 – 0.1	2005 – 2024	2008 – 2024
lppnC4ycbmt	91 (4.4%)	38 (2.6%)	0 – 0.1	0 – 0.1	2010 – 2024	2010 – 2024
iptrn	1036 (12.1%)	345 (5.5%)	0 – 2.2	0 – 0.2	1998 – 2024	2004 – 2024
Ir	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
irbstan	1876 (99%)	1418 (99.2%)	0 – 17	0 – 14	2010 – 2025	2010 – 2024
irgrl	258 (1.6%)	28 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2022
lsfrnC1y	120 (0%)	12 (0%)	0 – 0	0 – 0	2012 – 2020	2020 – 2020
lsfrnC1yNa	182 (0%)	28 (0%)	0 – 0	0 – 0	2016 – 2024	2018 – 2022
isprzm	231 (0.4%)	40 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2022
isxbn	77 (2.6%)	34 (5.9%)	0 – 0.3	0 – 0.1	2010 – 2024	2010 – 2024
ivlrazr	13 (0%)		0 – 0		2017 – 2021	
ivmctne	121 (0%)	119 (0%)	0 – 0	0 – 0	2012 – 2020	2012 – 2020
ixdfnC2y	81 (0%)	9 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2020
jodpAd	9 (0%)	9 (22.2%)	0 – 0	0 – 0.1	2007 – 2008	2007 – 2008
johxl	255 (49.4%)	180 (47.2%)	0 – 2.8	0 – 13	2005 – 2024	2005 – 2024
jompl	473 (73.6%)	342 (71.6%)	0 – 31	0 – 100	2005 – 2024	2005 – 2024
jopmde	452 (52.4%)	376 (46.5%)	0 – 23	0 – 140	2005 – 2024	2005 – 2024
jopmdl	970 (2.9%)	706 (0.3%)	0 – 32	0 – 15	2007 – 2024	2007 – 2024
jopninzr	202 (2%)	177 (7.3%)	0 – 0	0 – 0.1	2007 – 2024	2007 – 2024
jotlmnzr	237 (10.1%)	177 (9.6%)	0 – 0.8	0 – 0.2	2007 – 2024	2007 – 2024
joxgnzr	202 (1%)	177 (1.1%)	0 – 1.5	0 – 0.3	2007 – 2024	2007 – 2024
joxtlmnzr	346 (80.3%)	294 (67.7%)	0 – 4.3	0 – 61	2005 – 2024	2005 – 2024
K	1857 (99.9%)	780 (100%)	0 – 190000	6200 – 210000	2011 – 2024	2011 – 2024
ketAe		125 (12%)		0 – 0.1		2011 – 2015
ketpfn	1062 (22.4%)	795 (19.2%)	0 – 0.5	0 – 1.4	2005 – 2024	2005 – 2024
kresOxmC1y	571 (1.2%)	122 (3.3%)	0 – 0.1	0 – 1.1	2005 – 2024	2010 – 2024
L_PFBS	699 (70.1%)	592 (60.3%)	0 – 0.9	0 – 0.6	2010 – 2024	2017 – 2024
L_PFDS	526 (0.4%)	491 (2.2%)	0 – 0	0 – 0	2016 – 2024	2017 – 2024
L_PFHpS	598 (21.9%)	547 (15%)	0 – 0	0 – 0.1	2017 – 2024	2017 – 2024
L_PFHxS	689 (52.7%)	594 (54.2%)	0 – 0.2	0 – 1	2010 – 2024	2017 – 2024
La	16 (0%)	16 (100%)	0 – 0	0.3 – 2.7	2016 – 2017	2016 – 2017
lamtgne	40 (100%)	28 (67.9%)	0.2 – 1.2	0 – 0.7	2021 – 2024	2021 – 2024
lcyhltn	578 (0.2%)	169 (3.6%)	0 – 0	0 – 0.4	2010 – 2025	2010 – 2024
lencl	457 (11.2%)	113 (0.9%)	0 – 0.1	0 – 0	2006 – 2025	2010 – 2024
levmsl	3 (66.7%)		0 – 0.3		2010 – 2023	
levtrctm	273 (49.8%)	260 (95.8%)	0 – 0.5	0 – 17	2009 – 2022	2009 – 2022

Li	133 (89.5%)	133 (88%)	0 – 46	0 – 57	2009 – 2024	2009 – 2024
lidcine	1089 (96%)	831 (66.1%)	0 – 1.2	0 – 3.6	2005 – 2024	2005 – 2024
limnn	9 (100%)	1 (100%)	0.5 – 1	1.4 – 1.4	1998 – 1998	1990 – 1990
lincmcne	378 (10.8%)	334 (4.2%)	0 – 1.4	0 – 420	2005 – 2023	2008 – 2022
linrn	836 (12%)	212 (5.7%)	0 – 2.2	0 – 2.2	1998 – 2025	2006 – 2024
lisnpl	7 (28.6%)	11 (100%)	0 – 0.2	0.9 – 1.6	2021 – 2023	2021 – 2023
lopAd	11 (9.1%)		0 – 0		2010 – 2010	
lostan	276 (98.6%)	264 (99.6%)	0 – 1.3	0 – 3.7	2010 – 2022	2010 – 2022
Lu	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
lufnrn	218 (0%)	73 (0%)	0 – 0	0 – 0	2016 – 2025	2020 – 2024
m11n9cbxd9TH	125 (77.6%)		0 – 1.7		2011 – 2015	
mAh	16 (31.2%)		0 – 0.1		2016 – 2016	
malinhdzde	12 (0%)	12 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
malton	577 (0%)	129 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2024
manb	20 (100%)		0.6 – 40		1998 – 1998	
mandppAd	475 (1.3%)	127 (0.8%)	0 – 0.5	0 – 0.3	2011 – 2025	2018 – 2024
mandsbn	38 (0%)		0 – 0		2020 – 2024	
maptlne	11 (0%)		0 – 0		2010 – 2010	
MC4ySn	7 (100%)		0.1 – 0.3		2015 – 2017	
MCPA	747 (57.8%)	248 (37.5%)	0 – 3.7	0 – 11	2001 – 2025	2002 – 2024
MCPB	346 (0%)	42 (2.4%)	0 – 0	0 – 1	2002 – 2022	2006 – 2022
MCPP	334 (79.6%)	29 (72.4%)	0 – 6.1	0 – 3.8	2001 – 2021	2002 – 2021
mcresl	36 (0%)		0 – 0		2015 – 2015	
Mctfs	95 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
mebdzl	142 (2.1%)	122 (3.3%)	0 – 0.2	0 – 3.5	2015 – 2022	2016 – 2022
mecccne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
mecppP	377 (42.7%)	193 (26.4%)	0 – 1.1	0 – 1.9	2018 – 2025	2018 – 2024
meczne	11 (0%)		0 – 0		2010 – 2010	
MeFBSAA	43 (90.7%)	102 (64.7%)	0 – 0.1	0 – 0.1	2016 – 2024	2021 – 2024
MeFOSA	353 (0%)	293 (0%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
mefpDC2y	22 (0%)		0 – 0		2011 – 2016	
mefTFcnzl	35 (0%)		0 – 0		2024 – 2024	
memtne	11 (72.7%)		0 – 0		2010 – 2010	
mentl	1 (100%)	1 (100%)	2 – 2	13 – 13	1998 – 1998	1990 – 1990
mepnprm	198 (10.6%)	62 (0%)	0 – 0.5	0 – 0	2006 – 2024	2019 – 2024
mepqat	15 (53.3%)	2 (0%)	0 – 0	0 – 0	2017 – 2020	2020 – 2020
mepqCl	16 (0%)		0 – 0		2016 – 2016	
mesnl	46 (0%)	32 (0%)	0 – 0	0 – 0	2004 – 2012	2004 – 2012
messfrnC1y	328 (0%)	78 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2024
meston	393 (1.3%)	105 (2.9%)	0 – 0.1	0 – 0.2	2010 – 2024	2010 – 2024
metbmrn	477 (4.8%)	55 (12.7%)	0 – 0.5	0 – 9.8	1999 – 2024	2006 – 2024
metbtazrn	598 (1%)	126 (0.8%)	0 – 0.3	0 – 0	2002 – 2024	2008 – 2024
metbzn	644 (17.4%)	190 (4.2%)	0 – 12	0 – 11	2004 – 2025	2006 – 2024
metcnzl	296 (2.4%)	40 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2022
metdn		125 (45.6%)		0 – 0.1		2011 – 2015
metdton	272 (0%)	22 (0%)	0 – 0	0 – 0	2005 – 2024	2018 – 2020

metfmne	1508 (93%)	1220 (98.9%)	0 – 140	0 – 1151.1	2009 – 2024	2009 – 2024
metfnn	374 (5.1%)	95 (0%)	0 – 0.5	0 – 0	2012 – 2024	2018 – 2024
methafAe	125 (56.8%)		0 – 0.1		2011 – 2015	
metlCl	339 (20.9%)	103 (5.8%)	0 – 2.2	0 – 3	2005 – 2024	2006 – 2024
metlClC2asfz	100 (7%)	22 (0%)	0 – 0.1	0 – 0	2017 – 2024	2018 – 2020
metlClOoHac	100 (2%)	22 (0%)	0 – 0.1	0 – 0	2017 – 2024	2018 – 2020
metml	304 (1.3%)	115 (3.5%)	0 – 0.5	0 – 0.1	2005 – 2024	2006 – 2024
metndzl	175 (0%)	155 (3.2%)	0 – 0	0 – 1.4	2007 – 2022	2007 – 2022
metocb	532 (1.1%)	188 (0.5%)	0 – 0.2	0 – 0.2	2005 – 2025	2007 – 2024
metocbsfn	175 (0%)	101 (1%)	0 – 0	0 – 0	2005 – 2024	2007 – 2024
metocbSO	174 (1.1%)	101 (1%)	0 – 0.1	0 – 0	2005 – 2024	2007 – 2024
metpll	2408 (99.4%)	1768 (99.7%)	0 – 16	0 – 17	2005 – 2025	2005 – 2024
mettxt	98 (0%)	93 (1.1%)	0 – 0	0 – 0.3	2015 – 2022	2016 – 2022
metxrn	632 (4.3%)	137 (4.4%)	0 – 5.8	0 – 0.5	1998 – 2024	2006 – 2024
mevfs	577 (0.2%)	134 (0%)	0 – 0	0 – 0	2002 – 2024	2008 – 2024
mfmzn	13 (0%)		0 – 0		2016 – 2020	
MFySn	4 (0%)		0 – 0		2016 – 2017	
Mg	2544 (100%)	1027 (100%)	1.7 – 45000	1600 – 1.9e+07	2006 – 2024	2008 – 2024
MHPC	35 (0%)	30 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
miasrne	11 (18.2%)		0 – 0		2010 – 2010	
micanzl	355 (0.6%)	331 (3.6%)	0 – 0.3	0 – 0.5	2010 – 2024	2022 – 2024
minrlole	680 (15.3%)	570 (96%)	0 – 4000	0 – 70000	2006 – 2024	2004 – 2024
mirx	38 (0%)	4 (0%)	0 – 0	0 – 0	2007 – 2009	2007 – 2007
MInrn	601 (2.7%)	128 (0%)	0 – 0.5	0 – 0	1998 – 2024	2010 – 2024
mlxl	312 (10.9%)	100 (3%)	0 – 0.3	0 – 2.3	2003 – 2024	2006 – 2024
mlxlM	342 (9.6%)	87 (1.1%)	0 – 0.3	0 – 0.6	2016 – 2025	2018 – 2024
mmtn	669 (13%)	197 (6.6%)	0 – 40	0 – 1.6	2004 – 2025	2006 – 2024
Mn	2867 (99.8%)	1101 (100%)	0 – 210000	30 – 540000	2004 – 2024	2004 – 2024
Mo	2754 (42.7%)	1100 (94.2%)	0 – 70	0 – 220	2004 – 2024	2004 – 2024
monrn	517 (0.2%)	84 (0%)	0 – 0.3	0 – 0	1999 – 2024	2010 – 2024
monsn	142 (4.2%)	125 (0.8%)	0 – 0.1	0 – 0.2	2005 – 2022	2008 – 2022
morfne		125 (88%)		0 – 1.6		2011 – 2015
muskxln	132 (0%)	6 (0%)	0 – 0	0 – 0	2012 – 2022	2022 – 2022
mzCl	486 (19.1%)	129 (2.3%)	0 – 1.3	0 – 0.4	2006 – 2024	2008 – 2024
Naccmt	100 (8%)	101 (41.6%)	0 – 2.1	0 – 1000	2018 – 2024	2018 – 2024
Naf	2235 (17.9%)	781 (79.8%)	0 – 25	0 – 4.3	2000 – 2024	1990 – 2024
nafclne	173 (4%)	139 (0%)	0 – 0	0 – 0	2005 – 2022	2007 – 2022
nappAd	51 (17.6%)		0 – 0		2016 – 2024	
napxn	786 (66.5%)	669 (94.3%)	0 – 20	0 – 34	2005 – 2024	2005 – 2024
Nb	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
NC1yPFC4asfA	19 (0%)	37 (0%)	0 – 0	0 – 0	2016 – 2024	2021 – 2024
Nd	16 (0%)	16 (93.8%)	0 – 0	0 – 1.8	2016 – 2017	2016 – 2017
nefzdne	11 (0%)		0 – 0		2010 – 2010	
NFYfAd	1 (100%)		1 – 1		1998 – 1998	

Ni	11189 (90.5%)	2095 (72.1%)	0 – 220	0 – 170	2010 – 2024	2012 – 2024
nicsfrn	621 (2.1%)	182 (1.6%)	0 – 0.3	0 – 0.8	2010 – 2025	2010 – 2024
nictne	46 (100%)		0 – 5.5		1998 – 1999	
nitfrtn	1 (0%)		0 – 0		2023 – 2023	
N-MeFOSAA	487 (20.5%)	480 (22.3%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
NN4TC1yAn	1 (100%)		2 – 2		1998 – 1998	
NNDC4yfAd	1 (100%)		0.2 – 0.2		1990 – 1990	
NO3/NO2	35 (100%)		1600 – 15000		2013 – 2015	
norcdine		125 (63.2%)		0 – 0.1		2011 – 2015
noretsrn	32 (0%)	22 (0%)	0 – 0	0 – 0	2007 – 2012	2007 – 2012
norfxcne	17 (0%)	16 (68.8%)	0 – 0	0 – 1.6	2007 – 2023	2007 – 2016
NPEO1	14 (92.9%)	10 (90%)	0 – 1.1	0 – 52	2004 – 2004	2004 – 2004
NPEO2	14 (57.1%)	10 (100%)	0 – 0.2	0.8 – 13	2004 – 2004	2004 – 2004
NTA	92 (10.9%)	79 (8.9%)	0 – 110	0 – 330	2014 – 2024	2021 – 2024
nuarml	203 (0%)	48 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
Oaclne	190 (3.2%)	153 (2%)	0 – 0.5	0 – 0.4	2005 – 2022	2007 – 2022
OaDazn	194 (1.5%)	28 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2022
OaDxl	28 (0%)		0 – 0		2015 – 2018	
Oaml	494 (2%)	181 (0%)	0 – 0.1	0 – 0	2010 – 2025	2010 – 2024
OamOxme	28 (0%)		0 – 0		2015 – 2018	
Oasfrn	83 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
Oatapplne	9 (0%)	8 (0%)	0 – 0	0 – 0	2020 – 2022	2020 – 2022
OcC1yT4slxn	105 (0%)	110 (0%)	0 – 0	0 – 0	2018 – 2018	2018 – 2019
ocresl	104 (4.8%)		0 – 0.7		1998 – 2015	
oestn	267 (26.6%)	205 (28.3%)	0 – 0.2	0 – 0.4	1999 – 2024	1999 – 2024
ofxcne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
oladmcn	196 (3.1%)	161 (9.9%)	0 – 0.1	0 – 1.1	2005 – 2022	2007 – 2022
olinzr	1 (100%)	1 (100%)	5 – 5	18 – 18	1998 – 1998	1990 – 1990
omtat	203 (0%)	48 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
Oolnzr	98 (0%)	93 (1.1%)	0 – 0	0 – 0.5	2015 – 2022	2016 – 2022
orfadne	11 (90.9%)		0 – 0		2010 – 2010	
OTNE	28 (96.4%)	12 (100%)	0 – 24	2.1 – 15	2016 – 2023	2021 – 2023
OxcdHCl	1 (0%)		0 – 0		2023 – 2023	
Oxcznde	1 (0%)		0 – 0		2023 – 2023	
oxfdzle	1 (0%)		0 – 0		2023 – 2023	
Oxprnl	344 (99.1%)	331 (96.1%)	0 – 9.7	0 – 14	2022 – 2024	2022 – 2024
OxT4ccne02	135 (0.7%)	107 (0.9%)	0 – 0.4	0 – 10	2007 – 2022	2007 – 2022
oxzpm	1219 (97%)	1084 (94.9%)	0 – 3.1	0 – 3	2009 – 2024	2009 – 2024
pacbtzl	100 (2%)	62 (0%)	0 – 0.1	0 – 0	2019 – 2024	2019 – 2024
parctml	441 (21.3%)	346 (91.6%)	0 – 20	0 – 740	2007 – 2023	2007 – 2023
paroetne	44 (54.5%)	25 (64%)	0 – 0	0 – 24	2010 – 2017	2016 – 2017
paroonC1y	10 (0%)		0 – 0		2016 – 2016	
paroonC2y	32 (3.1%)	18 (0%)	0 – 0.1	0 – 0	2016 – 2017	2016 – 2017
Pb	10788 (66.3%)	2058 (95.1%)	0 – 65	0 – 180	2010 – 2024	2012 – 2024

PBB169	36 (19.4%)	5 (100%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
PBDE100	283 (6.4%)	81 (18.5%)	0 – 0	0 – 0	2001 – 2024	2004 – 2021
PBDE119	41 (0%)	2 (100%)	0 – 0	0 – 0	2001 – 2007	2007 – 2007
PBDE138	50 (18%)	39 (2.6%)	0 – 0	0 – 0	2001 – 2024	1999 – 2021
PBDE153	243 (7.4%)	84 (6%)	0 – 0	0 – 0	2001 – 2024	1999 – 2021
PBDE154	193 (2.6%)	72 (0%)	0 – 0	0 – 0	2001 – 2024	2007 – 2021
PBDE183	52 (11.5%)	6 (0%)	0 – 0	0 – 0	2001 – 2024	2021 – 2021
PBDE190	5 (0%)	2 (100%)	0 – 0	8.9 – 35	2001 – 2001	2007 – 2007
PBDE209	92 (39.1%)	11 (90.9%)	0 – 0	0 – 0.1	2001 – 2015	1999 – 2007
PBDE28	195 (3.1%)	74 (2.7%)	0 – 0	0 – 0	2001 – 2024	2004 – 2021
PBDE47	243 (9.9%)	87 (36.8%)	0 – 0	0 – 0.1	2001 – 2024	1999 – 2021
PBDE49	41 (0%)	34 (5.9%)	0 – 0	0 – 0	2007 – 2024	2007 – 2021
PBDE66	16 (31.2%)	6 (0%)	0 – 0	0 – 0	2001 – 2024	2021 – 2021
PBDE71	17 (5.9%)	8 (25%)	0 – 0	0 – 0	2001 – 2024	2007 – 2021
PBDE75	16 (12.5%)	8 (25%)	0 – 0	0 – 0	2001 – 2024	2007 – 2021
PBDE77	5 (0%)		0 – 0		2001 – 2001	
PBDE85	136 (6.6%)	48 (8.3%)	0 – 0	0 – 0	2001 – 2024	1999 – 2021
PBDE99	283 (14.8%)	86 (34.9%)	0 – 0	0 – 0	2001 – 2024	1999 – 2021
PCB101	1165 (1.5%)	269 (4.1%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB105	34 (0%)		0 – 0		2019 – 2019	
PCB114	34 (0%)		0 – 0		2019 – 2019	
PCB118	1165 (1%)	269 (3%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB123	34 (0%)		0 – 0		2019 – 2019	
PCB126	34 (0%)		0 – 0		2019 – 2019	
PCB138	1165 (2.1%)	270 (5.9%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB153	1165 (3%)	269 (6.3%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB156	34 (0%)		0 – 0		2019 – 2019	
PCB157	34 (0%)		0 – 0		2019 – 2019	
PCB167	34 (0%)		0 – 0		2019 – 2019	
PCB169	34 (0%)		0 – 0		2019 – 2019	
PCB180	1165 (2.3%)	269 (3%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB189	34 (0%)		0 – 0		2019 – 2019	
PCB28	1161 (1.6%)	269 (5.6%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB52	1165 (2.8%)	269 (4.5%)	0 – 0	0 – 0	2000 – 2024	2002 – 2024
PCB77	34 (0%)		0 – 0		2019 – 2019	
PCB81	34 (0%)		0 – 0		2019 – 2019	
PCDD48	74 (0%)	5 (0%)	0 – 0	0 – 0	2009 – 2020	2020 – 2021
PCDD54	76 (3.9%)	5 (0%)	0 – 0	0 – 0	2007 – 2020	2020 – 2021
PCDD66	75 (1.3%)	5 (0%)	0 – 0	0 – 0	2007 – 2020	2020 – 2021
PCDD67	75 (1.3%)	5 (0%)	0 – 10	0 – 0	2007 – 2020	2020 – 2021
PCDD70	75 (2.7%)	5 (0%)	0 – 0	0 – 0	2007 – 2020	2020 – 2021
PCDD73	76 (6.6%)	8 (87.5%)	0 – 0	0 – 0	2007 – 2020	2007 – 2021
PCDD75	77 (6.5%)	8 (87.5%)	0 – 5.9	0 – 0.2	2007 – 2020	2007 – 2021
PCDF112	37 (2.7%)		0 – 0		2007 – 2019	
PCDF114	38 (0%)	5 (0%)	0 – 0	0 – 0	2015 – 2020	2020 – 2021
PCDF118	75 (2.7%)	6 (16.7%)	0 – 0	0 – 0	2007 – 2020	2007 – 2021

PCDF121	76 (3.9%)	6 (16.7%)	0 – 0	0 – 0	2007 – 2020	2007 – 2021
PCDF124	75 (1.3%)	5 (0%)	0 – 0	0 – 0	2007 – 2020	2020 – 2021
PCDF130	75 (1.3%)	6 (16.7%)	0 – 0	0 – 0	2007 – 2020	2007 – 2021
PCDF131	77 (6.5%)	8 (75%)	0 – 0	0 – 0.1	2007 – 2020	2007 – 2021
PCDF134	75 (1.3%)	6 (16.7%)	0 – 0	0 – 0	2007 – 2020	2007 – 2021
PCDF135	76 (5.3%)	8 (62.5%)	0 – 0.1	0 – 0	2007 – 2020	2007 – 2021
PCDF83	77 (3.9%)	8 (37.5%)	0 – 0.2	0 – 0	2007 – 2020	2007 – 2021
PCDF94	76 (2.6%)	5 (0%)	0 – 0	0 – 0	2007 – 2020	2020 – 2021
pcresl	36 (0%)		0 – 0		2015 – 2015	
Pd	16 (12.5%)	16 (37.5%)	0 – 0.3	0 – 0.3	2016 – 2017	2016 – 2017
PeClAn	2 (0%)		0 – 0		2009 – 2009	
PeClansl	28 (0%)		0 – 0		2015 – 2018	
PeClBen	633 (3.2%)	255 (8.2%)	0 – 0	0 – 0.4	2002 – 2024	2004 – 2024
PeClFol	458 (19.7%)	46 (17.4%)	0 – 0.6	0 – 3	2000 – 2022	2004 – 2022
PeClNO2Ben	13 (0%)	1 (0%)	0 – 0	0 – 0	2008 – 2016	2008 – 2008
penccrn	630 (11.1%)	156 (1.3%)	0 – 3.1	0 – 0.2	2005 – 2025	2006 – 2024
penclnG	11 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2010	2007 – 2008
penclnV	11 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2010	2007 – 2008
pencnzl	221 (5.9%)	61 (0%)	0 – 0.1	0 – 0	2008 – 2024	2008 – 2024
pendmtln	693 (2.6%)	183 (0.5%)	0 – 0	0 – 0.1	2006 – 2025	2010 – 2024
penffn	166 (8.4%)	28 (0%)	0 – 0.2	0 – 0	2017 – 2024	2018 – 2022
pentoprd	166 (0%)	28 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2022
perfazne	11 (0%)		0 – 0		2010 – 2010	
permtn	206 (1.5%)	28 (71.4%)	0 – 0	0 – 0.5	2011 – 2024	2018 – 2022
PF37DC1yOA	3 (0%)	37 (0%)	0 – 0	0 – 0	2024 – 2024	2021 – 2024
PFBA	695 (55.7%)	594 (59.6%)	0 – 1	0 – 0.9	2012 – 2024	2017 – 2024
PFC16azr	403 (0.5%)	293 (0.7%)	0 – 0.1	0 – 0.4	2016 – 2024	2020 – 2024
PFC18azr	369 (0.5%)	293 (1%)	0 – 0	0 – 0.6	2016 – 2024	2020 – 2024
PFC4asfAd	19 (0%)	37 (0%)	0 – 0	0 – 0	2016 – 2024	2021 – 2024
PFC5asfzr	577 (31.7%)	536 (21.5%)	0 – 0	0 – 0.1	2020 – 2024	2020 – 2024
PFC9asfzr	135 (3.7%)	187 (3.2%)	0 – 0	0 – 0	2022 – 2024	2023 – 2024
PFDA	697 (50.8%)	594 (50%)	0 – 0	0 – 0.5	2010 – 2024	2017 – 2024
PFDoA	527 (1.9%)	492 (20.9%)	0 – 0	0 – 0	2016 – 2024	2017 – 2024
PFEtS	69 (0%)		0 – 0		2022 – 2024	
PFHpA	706 (68.7%)	594 (56.2%)	0 – 0.8	0 – 0.5	2010 – 2024	2017 – 2024
PFHxA	695 (70.4%)	594 (65.8%)	0 – 0.2	0 – 0.2	2012 – 2024	2017 – 2024
PFNA	705 (57.9%)	594 (49.3%)	0 – 0	0 – 0.5	2010 – 2024	2017 – 2024
PFOA	750 (70.5%)	627 (67.6%)	0 – 0.4	0 – 4.9	2010 – 2024	2010 – 2024
PFOS	850 (57.2%)	722 (52.6%)	0 – 0.7	0 – 1.6	2010 – 2024	2017 – 2024
PFOSA	448 (10.7%)	293 (3.8%)	0 – 0	0 – 0	2016 – 2024	2020 – 2024
PFPA	695 (61.7%)	594 (54.5%)	0 – 0.2	0 – 1.4	2012 – 2024	2017 – 2024
PFPrA	34 (5.9%)		0 – 0		2022 – 2023	
PFPrS	35 (48.6%)		0 – 0		2024 – 2024	
PFTDA	527 (0%)	492 (3.7%)	0 – 0	0 – 0	2016 – 2024	2017 – 2024
PFTeDA	527 (0.8%)	492 (4.9%)	0 – 0.1	0 – 0.1	2016 – 2024	2017 – 2024
PFUdA	695 (9.1%)	594 (18.4%)	0 – 0	0 – 0.3	2012 – 2024	2017 – 2024

PHMBHCl	12 (0%)		0 – 0		2017 – 2017	
piclnfn	124 (0%)	33 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
picxsbn	201 (0%)	22 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2020
pinadn	233 (0%)	28 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2022
pindll	18 (0%)	22 (0%)	0 – 0	0 – 0	2007 – 2010	2007 – 2010
pipprn	791 (15.3%)	668 (6.7%)	0 – 2	0 – 4.9	2009 – 2024	2009 – 2024
piprnbO	160 (5%)	81 (27.2%)	0 – 0.1	0 – 0.2	2006 – 2024	2005 – 2024
pirmcb	841 (19%)	216 (10.2%)	0 – 1.6	0 – 0.8	2001 – 2025	2002 – 2024
piztfn	11 (0%)		0 – 0		2010 – 2010	
p-ment38Dol	12 (0%)		0 – 0		2017 – 2017	
poxflne	990 (4.8%)	729 (4.7%)	0 – 0.1	0 – 5.3	2005 – 2024	2007 – 2024
Pr	16 (0%)	16 (12.5%)	0 – 0	0 – 0.4	2016 – 2017	2016 – 2017
pralltn	15 (0%)		0 – 0		2023 – 2023	
pravstne	34 (5.9%)	26 (34.6%)	0 – 0.1	0 – 0.3	2012 – 2017	2016 – 2017
primdn	341 (41.1%)	309 (13.9%)	0 – 0.2	0 – 0.2	2005 – 2022	2008 – 2022
proClaz	357 (5.3%)	79 (1.3%)	0 – 1.4	0 – 0.8	2006 – 2024	2008 – 2024
procmdn	327 (5.5%)	105 (0%)	0 – 0.1	0 – 0	2001 – 2024	2008 – 2024
profm	185 (15.7%)	23 (0%)	0 – 0.2	0 – 0	2002 – 2024	2008 – 2020
progtrn	186 (2.7%)	154 (1.3%)	0 – 0	0 – 0.1	2005 – 2023	2008 – 2022
promtn	63 (1.6%)		0 – 0.1		2006 – 2009	
promtne	241 (2.5%)	44 (0%)	0 – 0	0 – 0	2006 – 2024	2016 – 2020
promtzne	11 (0%)		0 – 0		2010 – 2010	
propAd	315 (21.9%)	106 (2.8%)	0 – 1	0 – 1.5	2006 – 2024	2008 – 2024
propCl	326 (1.2%)	122 (0%)	0 – 0.7	0 – 0	1998 – 2024	2008 – 2024
propcnzl	544 (30.1%)	130 (4.6%)	0 – 0.4	0 – 0.2	2005 – 2025	2008 – 2024
propfnzn	18 (11.1%)	22 (0%)	0 – 0.1	0 – 0	2007 – 2010	2007 – 2010
propmcb	355 (30.7%)	98 (50%)	0 – 0.6	0 – 1	2010 – 2024	2010 – 2024
propmcbHCl	190 (5.3%)	61 (18%)	0 – 0.7	0 – 0.2	2021 – 2025	2021 – 2024
propnll	1495 (84%)	1185 (80.2%)	0 – 3.1	0 – 2.8	2007 – 2025	2007 – 2024
propnllHCL	9 (11.1%)		0 – 1.1		2005 – 2018	
propozr		13 (53.8%)		0 – 60000		2017 – 2021
propqzfp	83 (0%)	13 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2022
proptfs	1 (100%)		0 – 0		2006 – 2006	
propxr	508 (27.8%)	172 (10.5%)	0 – 0.2	0 – 0.1	2002 – 2024	2005 – 2024
propzne	375 (0%)	120 (0%)	0 – 0	0 – 0	2005 – 2024	2016 – 2024
prosfcb	620 (28.7%)	171 (14.6%)	0 – 8.4	0 – 0.7	2002 – 2025	2005 – 2024
prosfrn	207 (1%)	72 (0%)	0 – 0	0 – 0	2011 – 2024	2018 – 2024
protocnzdto	10 (0%)		0 – 0		2016 – 2016	
protocnzl	105 (0%)	20 (0%)	0 – 0	0 – 0	2012 – 2022	2020 – 2022
Pt	25 (12%)	25 (12%)	0 – 0	0 – 0.1	2007 – 2017	2007 – 2017
pTolsfAd	13 (84.6%)		0 – 2		1998 – 2017	
pymtzne	277 (27.4%)	104 (8.7%)	0 – 4.6	0 – 1.9	2007 – 2024	2010 – 2024
Pyr	1575 (24.8%)	702 (88%)	0 – 7.6	0 – 30	1990 – 2024	2002 – 2024
pyrazfs	456 (0.4%)	126 (0%)	0 – 0.3	0 – 0	1999 – 2024	2008 – 2024
pyrcsbn	575 (1.6%)	151 (3.3%)	0 – 0.6	0 – 0	2012 – 2025	2017 – 2024
pyrdbn	526 (0.6%)	169 (0%)	0 – 0.1	0 – 0	2010 – 2025	2010 – 2024

pyrdfl	102 (1%)		0 – 0		2022 – 2025	
pyrdll	73 (0%)	7 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2020
pyrdt	187 (0%)	69 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2024
pyrffnC2y	296 (0%)	40 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2022
pyrfnx	156 (0.6%)	24 (0%)	0 – 0	0 – 0	2008 – 2024	2008 – 2020
pyrmtnl	330 (35.8%)	100 (0%)	0 – 0.6	0 – 0	2002 – 2024	2008 – 2024
pyrofnn	38 (0%)		0 – 0		2020 – 2024	
pyrpxfn	526 (0%)	169 (0%)	0 – 0	0 – 0	2010 – 2025	2010 – 2024
pyrslm	266 (0%)	28 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2022
quetpne	239 (7.1%)	220 (37.3%)	0 – 1.8	0 – 2.8	2009 – 2022	2009 – 2022
quincmn	73 (0%)	7 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2020
quinmrc	219 (0%)	48 (2.1%)	0 – 0	0 – 0.1	2010 – 2024	2010 – 2024
quinoxfn	315 (0%)	28 (0%)	0 – 0	0 – 0	2006 – 2024	2018 – 2022
quizlfPC2y	358 (0%)	95 (0%)	0 – 0	0 – 0	2012 – 2024	2018 – 2024
rantdne	11 (54.5%)		0 – 0		2010 – 2010	
Rb	16 (100%)	16 (100%)	12 – 30	12 – 40	2016 – 2017	2016 – 2017
Re	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
repgnde	11 (100%)		0 – 0		2010 – 2010	
rimsfrn	285 (0%)	28 (3.6%)	0 – 0	0 – 0.6	2012 – 2024	2018 – 2022
risprdne	11 (100%)		0 – 0		2010 – 2010	
ritlnzr	10 (90%)	135 (100%)	0 – 7.2	0.1 – 12	2021 – 2022	2011 – 2022
rondzl	151 (0%)	131 (0%)	0 – 0	0 – 0	2007 – 2022	2007 – 2022
rosvstne	11 (54.5%)		0 – 0.1		2010 – 2010	
roxtmcne	242 (2.9%)	206 (1%)	0 – 0.1	0 – 15	2005 – 2022	2005 – 2022
Ru	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
s12x5T4ClBen	15 (0%)	22 (0%)	0 – 0	0 – 0	2018 – 2018	2018 – 2019
s1314xyln	138 (2.9%)	75 (25.3%)	0 – 8400	0 – 9.9	2001 – 2024	2005 – 2024
s2425DClAn	81 (74.1%)		0 – 7500		2016 – 2024	
s2425DClFol	29 (93.1%)	5 (80%)	0 – 0.6	0 – 0.2	2000 – 2017	2004 – 2008
s2xDClFol	6 (100%)	4 (100%)	0 – 0.1	0.1 – 0.2	2001 – 2005	2004 – 2004
s45C1y1Hbzta	1123 (98%)	894 (92.1%)	0 – 110	0 – 160	2016 – 2025	2018 – 2024
s4C9yFol	93 (8.6%)	15 (93.3%)	0 – 1.5	0 – 19.2	1997 – 2017	1999 – 2008
saccrne	219 (57.1%)	162 (63.6%)	0 – 8.5	0 – 10000	2015 – 2024	2015 – 2024
sAEs	34 (14.7%)	35 (74.3%)	0 – 6.2	0 – 1100	2021 – 2023	2021 – 2023
salbtml	280 (0.7%)	264 (0%)	0 – 0.9	0 – 0	2007 – 2022	2007 – 2022
salczr	74 (5.4%)	41 (63.4%)	0 – 0.5	0 – 57	2012 – 2021	2016 – 2021
sAOX	365 (84.7%)	147 (63.3%)	0 – 410	0 – 140000	2000 – 2024	2002 – 2024
sARK	1 (100%)		0.3 – 0.3		2017 – 2017	
Sb	2366 (28.2%)	1104 (80.4%)	0 – 68	0 – 2400	2004 – 2024	2008 – 2024
sBbkF	17 (64.7%)		0 – 0.1		2005 – 2017	
sBghiPlnP	100 (17%)		0 – 0		2005 – 2009	
Sc	16 (81.2%)	16 (75%)	0 – 6.9	0 – 6.5	2016 – 2017	2016 – 2017
sC10C13Clakn	24 (0%)		0 – 0		2006 – 2017	
sC2oxdm	17 (0%)	22 (0%)	0 – 0	0 – 0	2018 – 2020	2018 – 2020
sChER	24 (100%)	7 (100%)	0.3 – 9.6	1.1 – 5.5	2001 – 2006	2001 – 2002
sClFol	26 (76.9%)	4 (100%)	0 – 0.6	0.1 – 0.2	2001 – 2012	2004 – 2004

sDC1yFol202	2 (0%)		0 – 0		2012 – 2012	
sDC1yFol3	4 (0%)		0 – 0		2012 – 2012	
sDC8yFt2	29 (34.5%)	22 (95.5%)	0 – 42	0 – 60	2006 – 2008	2006 – 2008
sDClC2e	6 (100%)		0.1 – 2		2006 – 2016	
sDClFol6	22 (81.8%)		0 – 0.6		2006 – 2012	
sDDD	8 (100%)		0 – 0.2		2002 – 2003	
sDDE	1 (100%)		0 – 0		2002 – 2002	
sDDT	8 (100%)	2 (100%)	0 – 0	0 – 0	2006 – 2006	2003 – 2007
sDDX6	4 (100%)		0 – 0.2		2004 – 2004	
sdetgtaiatf	34 (94.1%)	44 (100%)	0 – 630	100 – 7600	2020 – 2020	2021 – 2021
sdetgtkiatf	34 (32.4%)	44 (2.3%)	0 – 810	0 – 120	2020 – 2020	2021 – 2021
sdetgtniatf	1 (100%)	46 (100%)	1100 – 1100	1500 – 18000	2017 – 2017	2017 – 2021
sdmtn	124 (0%)	22 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2020
sdrin2	1 (100%)		0 – 0		2002 – 2002	
sdrin5	3 (33.3%)		0 – 0.3		2012 – 2013	
sDtocbmt	9 (0%)	3 (100%)	0 – 0	0.5 – 1.3	2016 – 2021	2021 – 2021
Se	738 (42.4%)	317 (87.4%)	0 – 4.4	0 – 3.7	2006 – 2024	2016 – 2024
seC4yazne	16 (0%)		0 – 0		2012 – 2016	
secC4yBen	46 (0%)	34 (0%)	0 – 0	0 – 0	2015 – 2019	2017 – 2022
sEDTANTADTPA	90 (98.9%)	78 (100%)	0 – 4000	47 – 11000	2021 – 2024	2021 – 2024
sedxne	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
sEOX	1558 (44.5%)	758 (74.1%)	0 – 1000	0 – 31000	2000 – 2024	2002 – 2024
sertlne	11 (0%)		0 – 0		2010 – 2010	
sftalt	17 (100%)	17 (100%)	1.4 – 8	6 – 33	2007 – 2023	2007 – 2023
sHBCD	12 (0%)	30 (0%)	0 – 0	0 – 0	2017 – 2019	2019 – 2020
sHCH	47 (72.3%)	25 (12%)	0 – 0.1	0 – 6	2005 – 2007	2004 – 2007
sHCH3	14 (100%)		0 – 0		2022 – 2022	
sHCH4	3 (33.3%)		0 – 0.2		2012 – 2013	
sHCH5	20 (100%)		0 – 0		2006 – 2006	
sHpClepO	38 (0%)	26 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
Si	533 (98.5%)	3 (100%)	0 – 19000	10000 – 24000	2005 – 2022	2018 – 2018
sildnfl	1 (0%)		0 – 0		2023 – 2023	
siltofm	151 (1.3%)	25 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2022
simvstne	145 (0%)	151 (4%)	0 – 0	0 – 1.2	2007 – 2023	2007 – 2020
simzne	969 (26.2%)	298 (7.7%)	0 – 5	0 – 1.4	1998 – 2024	2004 – 2024
slinverPFHxS	67 (97%)	188 (100%)	0 – 0	0 – 0	2023 – 2024	2023 – 2024
slinvertPFOA	239 (99.6%)	367 (99.7%)	0 – 0.4	0 – 0.4	2020 – 2024	2020 – 2024
slinvertPFOS	278 (91%)	406 (95.1%)	0 – 0.4	0 – 2.3	2018 – 2024	2018 – 2024
Sm	16 (0%)	16 (6.2%)	0 – 0	0 – 0.3	2016 – 2017	2016 – 2017
sMAK	6 (100%)	4 (100%)	0.6 – 1.1	6.6 – 9.1	2006 – 2016	2004 – 2004
sMClFol	1 (100%)		0.1 – 0.1		2006 – 2006	
SmtlCl	336 (33%)	87 (13.8%)	0 – 1.9	0 – 0.3	2017 – 2025	2018 – 2024
Sn	2090 (35.6%)	792 (98.4%)	0 – 6.2	0 – 34	2006 – 2024	2008 – 2024
sOCB23	20 (100%)	4 (100%)	0 – 0	0 – 0.2	2006 – 2006	2004 – 2004

sotll	2170 (99%)	1689 (94.6%)	0 – 4.6	0 – 7	2005 – 2025	2005 – 2024
sPAK	333 (26.4%)	125 (97.6%)	0 – 2.4	0 – 3.2	2000 – 2007	2002 – 2006
sPAK10	162 (16.7%)	226 (58.8%)	0 – 1	0 – 160	2002 – 2023	2002 – 2024
sPAK16	532 (72.7%)	424 (76.2%)	0 – 2.4	0 – 220	2006 – 2024	2004 – 2024
sPAK6	193 (28.5%)	164 (32.3%)	0 – 0.6	0 – 120	2000 – 2023	2002 – 2023
sPBB153DE154	6 (100%)	4 (100%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
sPBB169DE183	44 (20.5%)	4 (100%)	0 – 0	0 – 0	2007 – 2012	2007 – 2007
sPBDE6	38 (89.5%)	5 (100%)	0 – 0	0 – 0.1	2007 – 2009	2007 – 2007
sPCB7	90 (5.6%)	32 (0%)	0 – 0	0 – 0	2000 – 2007	2002 – 2006
spetlusfntn	34 (2.9%)	35 (42.9%)	0 – 79	0 – 420	2021 – 2023	2021 – 2023
spinsd	449 (39.4%)	145 (35.9%)	0 – 2.1	0 – 2.6	2010 – 2025	2010 – 2024
spinsnA	206 (0%)	59 (0%)	0 – 0	0 – 0	2015 – 2025	2020 – 2024
spinsnD	206 (0%)	59 (0%)	0 – 0	0 – 0	2015 – 2025	2020 – 2024
spirdcfn	195 (0%)	84 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
spirmcne	52 (9.6%)	41 (0%)	0 – 0.2	0 – 0	2005 – 2010	2007 – 2010
spirmsfn	359 (0.3%)	131 (0%)	0 – 0	0 – 0	2017 – 2025	2017 – 2024
spirttmt	245 (0%)	77 (0%)	0 – 0	0 – 0	2016 – 2024	2017 – 2024
spirxmne	3 (0%)		0 – 0		2020 – 2020	
Sr	2227 (100%)	828 (100%)	18 – 1200	38 – 1600	2000 – 2024	2011 – 2024
sT4ClFol	1 (100%)		0.1 – 0.1		2005 – 2005	
sTClFol	15 (100%)	1 (100%)	0 – 0.1	0 – 0	2001 – 2007	2004 – 2004
sTClFol2	2 (0%)		0 – 0		2012 – 2012	
sTHM4	1 (100%)		0.1 – 0.1		2017 – 2017	
sttC8yFol	2 (0%)		0 – 0		2012 – 2012	
styrn	215 (5.1%)	49 (16.3%)	0 – 0.3	0 – 1.2	1990 – 2021	2005 – 2024
succmr	6 (83.3%)		0 – 0		2011 – 2011	
suclse	145 (97.2%)	78 (100%)	0 – 90	6.5 – 90	2010 – 2024	2016 – 2024
sulcton	308 (0%)	85 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
sulfafr	3 (0%)	2 (0%)	0 – 0	0 – 0	2020 – 2020	2020 – 2020
sulfClprdzne	184 (0%)	152 (0.7%)	0 – 0	0 – 0.1	2005 – 2022	2009 – 2022
sulfdazne	166 (7.8%)	137 (13.9%)	0 – 2.1	0 – 5.9	2007 – 2023	2007 – 2022
sulfdmdne	200 (4%)	163 (1.8%)	0 – 0.1	0 – 0.3	2005 – 2022	2007 – 2022
sulfdmtoxne	170 (0%)	152 (0%)	0 – 0	0 – 0	2009 – 2022	2009 – 2022
sulfdxne	3 (0%)		0 – 0		2010 – 2023	
sulfmrzn	151 (0%)	131 (0.8%)	0 – 0	0 – 0.1	2007 – 2022	2007 – 2022
sulfmtoazl	2105 (90.3%)	1605 (92.6%)	0 – 64	0 – 338	2005 – 2025	2005 – 2024
sulfprdne	161 (83.2%)	146 (97.3%)	0 – 1.6	0 – 2.1	2008 – 2022	2008 – 2022
sulfqoxlne	200 (2.5%)	166 (1.8%)	0 – 0	0 – 0.5	2005 – 2022	2005 – 2022
sulfsfrn	16 (0%)		0 – 0		2016 – 2016	
sulftp	68 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
sVCK	3 (100%)		0.8 – 6.1		2006 – 2006	
sverttPFHxS	84 (69%)	188 (88.8%)	0 – 0	0 – 0	2022 – 2024	2023 – 2024
sverttPFOA	427 (60.7%)	436 (62.4%)	0 – 0	0 – 0	2020 – 2024	2020 – 2024
sverttPFOS	429 (74.1%)	436 (73.2%)	0 – 0.2	0 – 0.7	2018 – 2024	2020 – 2024
sVOX	11 (72.7%)	6 (100%)	0 – 50	0.5 – 15	2000 – 2014	2002 – 2004
sVVZ	438 (94.3%)		0 – 1300000		2011 – 2024	

sxyln	272 (2.9%)	19 (100%)	0 – 0.3	0.2 – 43	2000 – 2016	2004 – 2024
t1011DHOx101	107 (96.3%)	114 (99.1%)	0 – 4.3	0 – 5.2	2018 – 2020	2018 – 2020
t12DClC2e	216 (0%)	41 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
t13DClC3e	195 (0%)	34 (0%)	0 – 0	0 – 0	2005 – 2021	2017 – 2022
T2ClC2yPO4	53 (69.8%)	18 (5.6%)	0 – 0.6	0 – 2.6	1990 – 2023	2021 – 2023
T4BrbFolA	5 (100%)		0 – 0		2001 – 2001	
T4C4ySn	1 (0%)		0 – 0		2005 – 2005	
T4ccne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
T4ClC1a	313 (0%)	53 (0%)	0 – 0	0 – 0	2002 – 2021	2004 – 2022
T4ClC2a	9 (0%)	31 (0%)	0 – 0	0 – 0	2015 – 2019	2019 – 2022
T4ClC2e	317 (2.5%)	53 (5.7%)	0 – 3.1	0 – 6.2	1998 – 2021	2004 – 2022
T4Clvfs	167 (0%)	103 (0%)	0 – 0	0 – 0	2011 – 2024	2016 – 2024
T4cnzl	63 (0%)		0 – 0		2015 – 2024	
T4Hflmde	328 (9.5%)	109 (2.8%)	0 – 0.8	0 – 7.1	2015 – 2024	2017 – 2024
T4Hfrn	23 (17.4%)	9 (0%)	0 – 220	0 – 0	2016 – 2022	2018 – 2022
T4mtn	151 (0.7%)	22 (0%)	0 – 0	0 – 0	2015 – 2024	2018 – 2020
Ta	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
tabdzl	291 (61.5%)	48 (29.2%)	0 – 0.3	0 – 0.3	2006 – 2024	2006 – 2022
Tadmfn	177 (5.1%)	44 (9.1%)	0 – 0.3	0 – 0	2011 – 2024	2016 – 2020
Tadmnl	425 (1.4%)	131 (0%)	0 – 0	0 – 0	2008 – 2024	2008 – 2024
Talt	434 (8.8%)	124 (0.8%)	0 – 0.1	0 – 0.2	2006 – 2024	2005 – 2024
tamxfn	151 (3.3%)	120 (2.5%)	0 – 1	0 – 11	2010 – 2022	2017 – 2022
Tazfs	496 (0.2%)	115 (0%)	0 – 0	0 – 0	2002 – 2024	2007 – 2024
Tb	16 (43.8%)	16 (0%)	0 – 0.5	0 – 0	2016 – 2017	2016 – 2017
TBBPADM	7 (71.4%)		0 – 0		2001 – 2007	
TbnrC1y	167 (0.6%)	53 (0%)	0 – 0.1	0 – 0	2016 – 2025	2022 – 2024
TBrC1a	128 (0%)	34 (0%)	0 – 0	0 – 0	2006 – 2021	2017 – 2022
TBrHAc	4 (0%)	4 (0%)	0 – 0	0 – 0	2021 – 2021	2021 – 2021
TC1yhdzne	7 (100%)		0.6 – 3		1998 – 1998	
TC1yPO4	31 (0%)	18 (0%)	0 – 0	0 – 0	2016 – 2023	2021 – 2023
TC2yAe	16 (0%)		0 – 0		2016 – 2016	
TC2ycitt	13 (100%)		0.5 – 1		1998 – 1998	
TC2yPO4	64 (64.1%)	45 (57.8%)	0 – 1	0 – 1.2	2012 – 2023	2016 – 2023
TC4yPO4	193 (37.8%)	152 (10.5%)	0 – 8	0 – 0.9	1990 – 2023	2016 – 2023
TC4ySn	84 (3.6%)	60 (6.7%)	0 – 0	0 – 0.6	2005 – 2017	2004 – 2013
Tcbdzl	1 (0%)		0 – 0		2023 – 2023	
Tccbn	152 (0%)	122 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
TccC6ySn	7 (0%)		0 – 0		2005 – 2005	
TClBen	85 (0%)		0 – 0		2005 – 2009	
TClC1a	372 (22.8%)	53 (35.8%)	0 – 1	0 – 1.8	1998 – 2021	2004 – 2022
TClC2e	316 (1.9%)	54 (1.9%)	0 – 1	0 – 0	1990 – 2021	1990 – 2022
TClC3yPO4	139 (97.1%)	118 (98.3%)	0 – 340	0 – 86	2010 – 2023	2018 – 2023
tCldn	184 (0%)	33 (0%)	0 – 0	0 – 0	2009 – 2022	2018 – 2022
TClfn	169 (0%)	28 (0%)	0 – 0	0 – 0	2015 – 2022	2018 – 2022
TClHAc	15 (73.3%)	11 (63.6%)	0 – 1.4	0 – 4.6	2016 – 2021	2016 – 2021
TCMTB	12 (0%)		0 – 0		2017 – 2017	

Tcpr	236 (3.4%)	88 (1.1%)	0 – 0.2	0 – 0.1	2002 – 2025	2018 – 2024
Tcsn	140 (85.7%)	112 (91.1%)	0 – 0.2	0 – 2.9	2010 – 2023	2018 – 2019
TcsPO4	11 (0%)		0 – 0		2010 – 2010	
TcstnA		2 (100%)		2.3 – 6.8		2001 – 2001
Te	2124 (3.7%)	843 (5.9%)	0 – 1.9	0 – 1.1	2008 – 2024	2008 – 2024
tebcnzl	662 (28.7%)	184 (9.8%)	0 – 0.9	0 – 0.7	2002 – 2025	2008 – 2024
tebfprd	238 (0%)	99 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
tecrbzneC1y	100 (0%)	22 (0%)	0 – 0	0 – 0	2017 – 2024	2018 – 2020
tefbzrn	118 (0%)	45 (0%)	0 – 0	0 – 0	2011 – 2022	2018 – 2022
teftn	99 (0%)	13 (0%)	0 – 0	0 – 0	2016 – 2024	2019 – 2022
TEGDME	138 (45.7%)	94 (42.6%)	0 – 1.2	0 – 13	2016 – 2023	2017 – 2023
teldn	501 (2.8%)	225 (2.7%)	0 – 0	0 – 0	2002 – 2024	2018 – 2024
telmstn	11 (100%)		0.1 – 0.3		2010 – 2010	
tembtone	97 (1%)	8 (0%)	0 – 0	0 – 0	2016 – 2022	2020 – 2022
temzpm	124 (96.8%)	237 (89%)	0 – 12	0 – 11	2012 – 2022	2011 – 2022
teplxdm	202 (0%)	30 (6.7%)	0 – 0	0 – 0.1	2015 – 2024	2006 – 2022
terbtlne	167 (5.4%)	136 (0%)	0 – 0	0 – 0	2007 – 2022	2007 – 2022
terbtn	587 (29.3%)	232 (2.2%)	0 – 0.9	0 – 0.2	2005 – 2024	2008 – 2024
terC4yazne	833 (25.9%)	206 (10.7%)	0 – 17	0 – 21	2005 – 2025	2006 – 2024
terpihdt	1 (100%)		4 – 4		1998 – 1998	
TFHAc	40 (100%)	10 (100%)	0.4 – 8.3	0.8 – 6.7	2017 – 2023	2023 – 2024
TFlC1asfzr	34 (97.1%)		0 – 0		2022 – 2023	
tfluoxsbn	364 (1.4%)	139 (0.7%)	0 – 0	0 – 0	2016 – 2025	2018 – 2024
Tfmzl	201 (5%)	89 (0%)	0 – 0.1	0 – 0	2010 – 2024	2010 – 2024
tfosfmdn	26 (0%)	22 (4.5%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
Tfrlne	659 (0%)	180 (0%)	0 – 0	0 – 0	2005 – 2024	2004 – 2024
TfsfrnC1y	427 (0%)	104 (1%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
tftn	15 (0%)		0 – 0		2023 – 2023	
Tfxsbn	709 (1.1%)	183 (0.5%)	0 – 0.1	0 – 0	2006 – 2025	2010 – 2024
TFyffnS	115 (0.9%)	115 (0%)	0 – 0	0 – 0	2012 – 2018	2012 – 2019
TFyPO4	50 (24%)	18 (27.8%)	0 – 0.2	0 – 0.3	2010 – 2023	2021 – 2023
TFySn	14 (0%)		0 – 0		2005 – 2017	
Th	16 (6.2%)	16 (6.2%)	0 – 0.6	0 – 0.7	2016 – 2017	2016 – 2017
theoplne	31 (48.4%)	23 (95.7%)	0 – 0.1	0 – 7.8	2012 – 2017	2016 – 2017
thiacpd	622 (8.5%)	217 (4.1%)	0 – 0.2	0 – 0.2	2010 – 2025	2010 – 2024
thiamtxm	622 (17.2%)	217 (6.9%)	0 – 1.1	0 – 0.6	2010 – 2025	2010 – 2024
thifsfrnC1y	262 (0.4%)	67 (0%)	0 – 0.1	0 – 0	2010 – 2024	2010 – 2024
tHpClepO	415 (1.4%)	247 (3.2%)	0 – 0	0 – 0	2002 – 2024	2016 – 2024
Thxfidl	11 (36.4%)		0 – 0		2010 – 2010	
Ti	101 (57.4%)	16 (100%)	0 – 9.6	39 – 140	2015 – 2022	2016 – 2017
tiamlne	201 (7%)	161 (1.9%)	0 – 4.6	0 – 2.5	2005 – 2022	2008 – 2022
TiC4yPO4	178 (93.8%)	152 (60.5%)	0 – 3.6	0 – 23	2010 – 2023	2016 – 2023
tilmcsne	3 (0%)		0 – 0		2010 – 2023	
Tl	2055 (0.4%)	791 (3.2%)	0 – 2.3	0 – 1.7	2008 – 2024	2008 – 2024
Tm	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
tmevfs	10 (0%)		0 – 0		2016 – 2016	

Tmtcb	38 (0%)		0 – 0		2015 – 2018	
Tmtpm	2015 (89.2%)	1528 (85.5%)	0 – 39	0 – 159	2005 – 2025	2005 – 2024
tNnCl	1 (0%)		0 – 0		2007 – 2007	
TnxpcC2y	155 (0%)	58 (0%)	0 – 0	0 – 0	2017 – 2024	2019 – 2024
toDcb	16 (0%)		0 – 0		2016 – 2016	
tofnC1y	286 (7.3%)	105 (9.5%)	0 – 2	0 – 0.7	2006 – 2024	2006 – 2024
Tol	547 (17.4%)	83 (100%)	0 – 20	0.7 – 53	1990 – 2024	1990 – 2024
tolbAd	1 (100%)		2 – 2		1998 – 1998	
tolcfsC1y	431 (4.6%)	154 (13.6%)	0 – 0	0 – 0.4	2002 – 2024	2004 – 2024
tolfAezr	90 (5.6%)	55 (0%)	0 – 0	0 – 0	2005 – 2021	2008 – 2021
tolfande	356 (0.6%)	102 (0%)	0 – 0.7	0 – 0	2008 – 2024	2008 – 2024
toltzrl	1 (0%)		0 – 0		2023 – 2023	
tomtn	154 (0%)	82 (1.2%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
topmzn	99 (0%)	40 (0%)	0 – 0	0 – 0	2011 – 2024	2019 – 2024
toxafn	35 (0%)	5 (0%)	0 – 0	0 – 0	2007 – 2007	2007 – 2007
tpermtn	144 (0%)	82 (4.9%)	0 – 0	0 – 0.7	2010 – 2024	2010 – 2024
TPPO	257 (64.6%)	209 (22%)	0 – 3	0 – 1	2012 – 2023	2012 – 2023
tpyrfnx	144 (0%)	82 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
tramdl	394 (88.3%)	294 (51%)	0 – 4.4	0 – 7.1	2007 – 2024	2016 – 2024
tris2C2yC6yP	49 (28.6%)	18 (72.2%)	0 – 2	0 – 24	1998 – 2023	2021 – 2023
tris2C4oxC2y	177 (85.9%)	134 (88.1%)	0 – 19	0 – 98	1998 – 2023	1990 – 2023
tris2Cl1ClC1	17 (64.7%)		0 – 0.6		2010 – 2012	
tritsfrn	466 (0.2%)	87 (0%)	0 – 0.1	0 – 0	2011 – 2025	2018 – 2024
tT4ClFtzr	12 (0%)	8 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017
ttC4ol	2 (0%)		0 – 0		2018 – 2019	
ttC4yBen	49 (0%)	34 (0%)	0 – 0	0 – 0	2006 – 2019	2017 – 2022
Ttcnzl	38 (0%)		0 – 0		2020 – 2024	
tylsne	152 (2%)	131 (3.1%)	0 – 38	0 – 15	2007 – 2023	2007 – 2022
U	1643 (14.2%)	437 (90.8%)	0 – 3.1	0 – 1.3	2012 – 2024	2016 – 2024
V	2600 (32.3%)	862 (81.1%)	0 – 14	0 – 23	2005 – 2024	2004 – 2024
valfnlt	63 (0%)	13 (0%)	0 – 0	0 – 0	2019 – 2024	2019 – 2022
valrazr		13 (0%)		0 – 0		2017 – 2021
valstan	1038 (90.5%)	814 (98%)	0 – 32	0 – 52	2010 – 2024	2010 – 2024
valum	200 (17%)	172 (8.1%)	0 – 0	0 – 0.1	2007 – 2022	2007 – 2022
vamdton	67 (0%)	26 (0%)	0 – 0	0 – 0	2010 – 2024	2010 – 2024
venlfxne	1195 (98.7%)	905 (95.8%)	0 – 1.3	0 – 1.9	2007 – 2025	2007 – 2024
verdx	28 (3.6%)	12 (16.7%)	0 – 4	0 – 0.2	2016 – 2023	2021 – 2023
verpml	11 (0%)		0 – 0		2010 – 2010	
verslde	14 (100%)		0.5 – 0.9		1998 – 1998	
vigbtne	44 (0%)	38 (0%)	0 – 0	0 – 0	2009 – 2017	2009 – 2017
vinczln	412 (1%)	107 (0.9%)	0 – 0.1	0 – 0.2	2005 – 2024	2005 – 2024
virgnamcne	9 (0%)	9 (0%)	0 – 0	0 – 0	2007 – 2008	2007 – 2008
W	506 (23.1%)	339 (49.9%)	0 – 9.6	0 – 5.4	2015 – 2024	2016 – 2024
warfrn	140 (0%)	122 (0%)	0 – 0	0 – 0	2015 – 2022	2016 – 2022
Y	16 (0%)	16 (81.2%)	0 – 0	0 – 1.5	2016 – 2017	2016 – 2017
Yb	16 (0%)	16 (0%)	0 – 0	0 – 0	2016 – 2017	2016 – 2017

Zn	11582 (99.5%)	2422 (99.9%)	0 – 2400	0 – 14000	2010 – 2024	2012 – 2024
Znprton	12 (0%)		0 – 0		2017 – 2017	
zOaAd	21 (0%)	20 (0%)	0 – 0	0 – 0	2020 – 2022	2020 – 2022
zolpdm	11 (18.2%)		0 – 0		2010 – 2010	
Zr	16 (12.5%)	16 (81.2%)	0 – 2.2	0 – 5.9	2016 – 2017	2016 – 2017

B Tabel met uitgesloten stoffen

Stof AQUO code	Stof omschrijving
ALKLTT	Alkaliteit
BEZ	Bezinksel
BZV5	Biochemisch zuurstofverbruik over 5 dagen
BZV5a	Biochemisch zuurstofverbruik met allylthioureum
Ca	calcium
cellIse	cellulose
CHLFa	chlorofyl-a
Cl	chloride
CO3	carbonaat
Corg	koolstof organisch
CZV	Chemisch zuurstofverbruik
DS	Droge stof
E_COLI	Escherichia coli
GR	Gloeirest
HCO3	waterstofcarbonaat
IR	Indamprest
KLEURITSTT	Kleur intensiteit
LEGONLA	Legionella
LEGONLnPMPLA	Legionella non-pneumophila
Na	natrium
NH3	ammoniak
NH4	ammonium
NKj	stikstof Kjeldahl
NO2	nitriet
NO3	nitraat
NOx	stikstofoxiden
Ntot	stikstof totaal
NVT	Niet van toepassing
O2	zuurstof
OB	Onopgeloste bestandsdelen
pH	Zuurgraad
PO4	fosfaat
Ptot	fosfor totaal
S	sulfide
SARS-CoV-2	SARS-gerelateerd coronavirus, COVID-19
sEOV	som extraheerbare oliën en vetten
sestgnsfn	som oestrogene stoffen

sglucctcidsf	som glucocorticoïde stoffen
SiO2	siliciumdioxide
sNO3NO2	som nitraat en nitriet
SO4	sulfaat
Stot	zwavel totaal
TOC	totaal organisch koolstof
TOTCLS	Totaal Coli's (incubatie bij 37 C)
TOXCTT	Toxiciteit
TZV	Totaal zuurstofverbruik
VET	Vet
ZAND	Zand

C Lijst met uitgesloten deelprocessen

Rwzi naam	MEETTYPE	DEELPROCES (CODE_DPS)	Aantal metingen
'S HERTOGENBOSCH	Effluent	Effluentleiding 2(wIAF.el-002)	638
'S HERTOGENBOSCH	Effluent	Effluentleiding 1(wIAF.el-001)	531
'S HERTOGENBOSCH	Effluent	Effluentleiding 3(wIAF.el-003)	441
BERKENWOUDE	Effluent	Afvoeren(wIAF)	356
BERKENWOUDE	Effluent	Waterharmonica, filter(wINT.f--001)	139
DEVENTER	Influent	Influentkelder 1 Deventer Vrijverval(tITA.ik-001)	352
DEVENTER	Influent	Influentkelder 2 Voorstad(tITA.ik-002)	351
DINTHER	Effluent	Effluentleiding 1(wIAF.el-001)	1031
DINTHER	Effluent	Effluentleiding 2(wIAF.el-002)	862
EVERSTEKOOG	Effluent	Afvoeren (effluent)(wIAF)	292
EVERSTEKOOG	Effluent	Helofytenfilter (effluent)(wITO.wlp001)	127
GARMERWOLDE	Biologisch gezuiverd water	Nabezinktank 0(wIBI.nbt000)	392
HORSTERMEER	Biologisch gezuiverd water	1-Step Filter Installatie(wINT002)	323
LEIDEN NOORD	Biologisch gezuiverd water	Nabezinktank 3&4(wIBI.nbt200)	1744
LEIDEN NOORD	Biologisch gezuiverd water	Nabezinktanks(wIBI.nbt000)	976
LEIDEN NOORD	Biologisch gezuiverd water	Nabezinktank 1&2(wIBI.nbt100)	870
LEIDEN NOORD	Biologisch gezuiverd water	Ozon doseertank straat 2(wINT.t--002)	270
LEIDEN NOORD	Biologisch gezuiverd water	Ozon doseertank straat 1(wINT.t--001)	144
LEIDEN NOORD	Biologisch gezuiverd water	Nabezinktanks(wIBI.nbt000)	58
MAASBOMMEL	Biologisch gezuiverd water	Zandfilter(wINT.zf-000)	64

NIJMEGEN	Biologisch gezuiverd water	Biologisch zuiveren (afloop NBT)(wlBI)	69
OLST WIJHE	Influent	Influentkelder 1 Olst vrijverval(tlTA.ik-001)	223
OLST WIJHE	Influent	Influentkelder 2 Wijhe/Middel(tlTA.ik-002)	223
SLEEUWIJK	Effluent	Effluentleiding 1, oud tot 22-6-2018-2018(wlAF.el-201)	92
SLEEUWIJK	Effluent	Effluentleiding 2, oud tot 22-6-2018-2018(wlAF.el-102)	91
VELSEN	Biologisch gezuiverd water	Nabezinktank 1(wlBI.nbt001)	196
VELSEN	Biologisch gezuiverd water	Nabezinktank 2(wlBI.nbt002)	192
ZUIDHORN 1	Effluent	Afvoeren(wlAF)	308
ZUIDHORN 1	Influent	Transporteren(tlTA)	308
ZUIDHORN 2	Effluent	Afvoeren(wlAF)	276
ZUIDHORN 2	Influent	Transporteren(tlTA)	276
ZUTPHEN	Biologisch gezuiverd water	effluent Nereda(wlAF.put004)	760
ZUTPHEN	Effluent	afloop NBT 3/4 (effluent 2 naar GMB)(wlAF.put002)	298
ZWOLLE	Effluent	Effluentleiding 2(wlAF.el-002)	1279
ZWOLLE	Effluent	Effluentleiding 1(wlAF.el-001)	273
BLARICUM	Influent	Fijnzeef(wlON.zt-001)	30
'S HERTOGENBOSCH	Biologisch gezuiverd water	Contacttank demon(wlDB.ct-001)	4
AARLE RIXTEL	Biologisch gezuiverd water	Nabezinktank 1t/m4+9(wlBI.nbt100)	103
AARLE RIXTEL	Effluent	Nabezinktank 5t/m8+10(wlBI.nbt200)	102
ALPHEN NOORD	Biologisch gezuiverd water	Nabezinktanks(wlBI.nbt000)	865
AMERSFOORT	Biologisch gezuiverd water	Nabezinktank(s)(wlBI.nbt000)	102
APELDOORN	Influent	Ontvangsttank(wlDB.bft001)	91
APELDOORN	Biologisch gezuiverd water	Demonreactor(wlDB.at-001)	78
BATH	Biologisch gezuiverd water	Nabezinktank 4(wlBI.nbt004)	16
BATH	Biologisch gezuiverd water	Nabezinktank 5(wlBI.nbt005)	16
BENNEKOM	Biologisch gezuiverd water	Biologisch zuiveren(wlBI)	48
BEVERWIJK	Biologisch gezuiverd water	Oxische tank(wlDB.oxt001)	71
BIEST HOUTAKKER	Biologisch gezuiverd water	Nabezinktank(wlBI.nbt000)	551
DE GROOTE LUCHT	Influent	Verdeelwerk 1(wlON.vdw001)	102
DE GROOTE LUCHT	Effluent	DG4+LAB(zoOV.trn002)	208

DE GROOTE LUCHT	Effluent	Terrein(zoOV.trn001)	14
DELFZIJL	Influent	Influentkelder(tlTA.ik-001)	2
DOKHAVEN	Biologisch gezuiverd water	Tussenbezinktank straat 3 Oost(wlBI.tbt300)	491
DOKHAVEN	Biologisch gezuiverd water	Tussenbezinktank straat 4 Oost(wlBI.tbt400)	491
DOKHAVEN	Biologisch gezuiverd water	Tussenbezinktank straat 1 West(wlBI.tbt100)	485
DOKHAVEN	Biologisch gezuiverd water	Tussenbezinktank straat 2 West(wlBI.tbt200)	479
DOKHAVEN	Biologisch gezuiverd water	Afvoerleiding Sharon(wlDB.vtk002)	82
DOKHAVEN	Biologisch gezuiverd water	Afvoerleiding Anammox(wlDB.vtk003)	59
DOKHAVEN	Effluent	Recirculatie(wlAF.el-001)	29
DOKHAVEN	Biologisch gezuiverd water	Nabezinktank straat 2 West(wlBI.nbt200)	19
DOKHAVEN	Biologisch gezuiverd water	Nabezinktank straat 3 Oost(wlBI.nbt300)	19
DOKHAVEN	Biologisch gezuiverd water	Nabezinktank straat 4 Oost(wlBI.nbt400)	19
DOKHAVEN	Biologisch gezuiverd water	Nabezinktank straat 1 West(wlBI.nbt100)	18
DORDRECHT	Influent	Streng Busbaan(tlTA.stg005)	1459
DORDRECHT	Influent	Streng Baanhoekweg(tlTA.stg002)	1037
ECHTEN	Biologisch gezuiverd water	Demon reactor(wlDB.oxt001)	56
EDE	Biologisch gezuiverd water	Toevoergoot(wlNT.vtk002)	268
EINDHOVEN	Influent	Regenbuffertank(wlON.bft001)	72
GARMERWOLDE	Biologisch gezuiverd water	Anammox Nabezinktank(wlDB.nbt002)	199
GOOR	Influent	Streng 1(tlTA.stg001)	197
HATTEM	Biologisch gezuiverd water	Contacttank 1(wlBI.ct-001)	6
HENGELO	Biologisch gezuiverd water	Anamox reactor(wlDB.oxt001)	1187
HENGELO	Biologisch gezuiverd water	Deelstroom behandeling(wlDB)	438
HESSENPOORT	Influent	Dieze Oost(tlTA.stg001)	2
HESSENPOORT	Influent	Hessenpoort(tlTA.stg002)	2
HORSTERMEER	Biologisch gezuiverd water	Pilot O3-Step buffertank(wlNT.bft003)	1164
HORSTERMEER	Biologisch gezuiverd water	Pilot O3-Step ozon generator(wlNT.oz-003)	281
HORSTERMEER	Biologisch gezuiverd water	Ozon Contacttanks(wlNT.rec001)	62
KAMPEN	Influent	Streng Kampen(tlTA.stg001)	453

KAMPEN	Influent	Streng IJsselmuiden(tlTA.stg002)	452
LAND VAN CUIJK	Biologisch gezuiverd water	Zandfilter(wlNT.zf-000)	313
NIEUWE WATERWEG	Biologisch gezuiverd water	Verdeelwerk 2(wlBI.vdw002)	17
NIEUWVEER	Biologisch gezuiverd water	Tussenbezinktank(wlBI.tbt000)	332
NIEUWVEER	Biologisch gezuiverd water	Deelproces behandeling(wlDB)	277
NIEUWVEER	Biologisch gezuiverd water	Biologisch zuiveren(wlBI)	8
OLBURGEN	Influent	influentkelder Gemeente(tlTA.ik-001)	5
OOTMARSUM	Influent	Streng Vrijverval(tlTA.stg001)	106
OUD BEIJERLAND	Biologisch gezuiverd water	Nabezinktank 1(wlBI.nbt101)	9
OUD BEIJERLAND	Biologisch gezuiverd water	Nabezinktank 2(wlBI.nbt201)	8
RAALTE	Influent	Influentkelder 1(tlTA.ik-001)	295
RAALTE	Influent	Streng 2 Broekland/Heeten(tlTA.stg002)	294
RAALTE	Influent	Streng 3 Lemelerveld/Marienheem(tlTA.stg003)	294
RENKUM	Influent	Streng 2 (Wageningen)(tlTA.stg002)	19
SIMPELVELD	Biologisch gezuiverd water	Actiefslibtank(wlBI.at-000)	433
SOERENDONK	Biologisch gezuiverd water	Nabezinktank(wlBI.nbt)	1013
TERWOLDE	Influent	Zandvang 1(wlON.zv-001)	26
TIEL	Influent	Influentkelder 1(tlTA.ik-001)	21
TILBURG	Biologisch gezuiverd water	Ontluchtingstank (OT)(wlDB.rec002)	754
VELSEN	Biologisch gezuiverd water	Tussenbezinktank(wlBI.tbt001)	433
VROOMSHOOP	Biologisch gezuiverd water	Nereda(wlBI.at-201)	199
WALCHEREN	Biologisch gezuiverd water	Deelstroombehandelen(wlDB)	473
WINTERSWIJK	Effluent	Project Nijhuis(wlAF002)	819
ZALTBOMMEL	Influent	Ontvangwerk glastuinbouw(tlTA.ow-001)	383
ZWOLLE	Biologisch gezuiverd water	Anammoxtank(wlDB.at-001)	302