301 CMR 41.00: TOXIC OR HAZARDOUS SUBSTANCE LIST

Section

41.01: Authority and Purpose

(1) Authority. The Administrative Council On Toxics Use Reduction adopts 301 CMR 41.00 pursuant to M.G.L. c. 21I, §§ 4(C) and 9.

(2) Purpose. The Administrative Council on Toxics Use Reduction promulgates 301 CMR 41.00 to carry out its authority and responsibility:

(a) to promote the coordination and enforcement of federal and state laws and regulations pertaining to toxics production and use, hazardous waste, industrial hygiene, worker safety, public exposure to toxics and the release of toxics into the environment;

(b) to coordinate state programs in order to promote, most effectively, toxics use reduction in the Commonwealth;

(c) to minimize unnecessary duplication of reporting requirements concerning toxic or hazardous substance production, use, release, disposal, and worker exposure;

(d) to provide up-to-date and consistent information about manufacturing, worker exposure, distribution, process, sale, storage, release or other use of toxics on a facility, regional and statewide basis;

(e) to adjust the toxic or hazardous substance list under M.G.L. c. 21I, § 9 by adding or deleting substances consistent with the changes on the Toxic Chemical List established pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA);

(f) to adjust the toxic or hazardous substance list under M.G.L. c. 21I, § 9 by retaining or deleting substances listed pursuant to sections 101(14) and 102 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and to furthermore adjust the toxic or hazardous substance list by adding or deleting substances consistent with changes to the lists established pursuant to said sections of CERCLA;

(g) to designate toxic or hazardous substances as higher hazard substances or lower hazard substances; and

(h) to otherwise effectuate the purposes of M.G.L. c. 21I.

41.02: Definitions

Board means the Science Advisory Board of the Toxics Use Reduction Institute at the University of Massachusetts Lowell.

Calendar Year Reporting Period means the calendar year beginning with the month of January and ending with the month of December.

CAS Registry Number or CAS # means that number assigned to a chemical substance by the Chemical Abstract Service.

CERCLA means the Comprehensive Environmental Response Compensation and Liability Act, 42 USC § 9601, *et seq.* (Public Law 92-500).

Council means the Administrative Council on Toxics Use Reduction created under M.G.L. c. 21I, § 4.

Department means the Department of Environmental Protection.

EPCRA means the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11001 *et seq.* (Public Law 99-499).

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Establishment means an economic unit, generally at a single physical location, where business is conducted or where services or industrial operations are performed.

Facility means all buildings, equipment, structures, and other stationary items which are located on single site or on contiguous or adjacent sites and which are owned or operated by the same person, or by any person who controls, is controlled by, or is under common control with, such person. A facility may consist of more than one establishment if the establishments are operated by persons who have a common corporate or business interest (including, without limitation, common ownership or control) in the establishments. If the facility consists of more than one establishment where the establishments are operated by persons who do not have a common corporate or business interest (including, without limitation, common ownership or control) in the establishments, then each such person shall treat the establishments it operates as a facility. For purposes of 301 CMR 41.02: Facility, a "common corporate or business interest" includes ownership, partnership, joint ventures, ownership of a controlling interest in one person by the other, or ownership of a controlling interest in both persons by a third person.

Higher Hazard Substance means a substance designated by the Council as a higher hazard substance pursuant to M.G.L. c. 21I, § 9, and 301 CMR 41.00.

Import means to cause a toxic substance (including a mixture containing a toxic substance) to be imported into the customs territory of the United States. For purposes of 301 CMR 41.02: Import, "to cause" means to intend that the toxic substance be imported and to control the identity of the imported toxic substance and the amount to be imported. For purposes of 301 CMR 41.02: Import, "to cause" includes, without limitation:

(a) situations where a person orders a toxic substance from a foreign supplier; and

(b) situations where the person uses an import brokerage firm as an agent to obtain the toxic substance.

Lower Hazard Substance means a substance designated by the Council as a lower hazard substance pursuant to M.G.L. c. 21I, § 9, and 301 CMR 41.00.

Manufacture means to produce, prepare, import or compound a toxic or hazardous substance. Manufacture shall also mean to produce a toxic or hazardous substance coincidentally during the manufacture, processing, use or disposal of another substance or mixture of substances, including a toxic substance that is separated from such other substance or mixture of substances as a byproduct, and a toxic substance that remains in such other substance or mixture of substances as an impurity.

Person means any individual, trust, firm, joint stock company, corporation, partnership or association engaged in business or in providing service, excluding the Commonwealth of Massachusetts, and any authority, district, municipality or political subdivision of the Commonwealth of Massachusetts.

Process means the preparation of a toxic or hazardous substance including, without limitation, a toxic substance contained in a mixture or trade name product, after its manufacture, for distribution in commerce:

(a) in the same form or physical state, or in a different form or physical state from, that in which it was received by the toxics user so preparing such substance; or

(b) as part of an article containing the toxic or hazardous substance.

Substance means any agent or material including, but not limited to: pure chemicals with a specific chemical and structural identity; and categories or groups of chemicals, compounds or mixtures that share similar, identifiable characteristics such as, but not limited to, elemental composition, chemical formula, chemical structure, chemical properties, physical properties, functional groups or chemical manufacture.

Toxic means toxic or hazardous.

Toxic or Hazardous Substance means a substance in a gaseous, liquid, solid or other form which is identified on the toxic or hazardous substance list established pursuant to M.G.L. c. 21I, § 9, and 301 CMR 41.00, but which will not include any substance when it is:

(a) present in an article;

(b) used as a structural component of a facility;

(c) present in a product used for routine janitorial or facility grounds maintenance;

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(d) present in foods, drugs, cosmetics or other personal items used by employees or other toxics users at a facility;
(e) present in a product used for the purpose of maintaining motor vehicles operated by a facility;
(f) present in process water or non-contact cooling water as drawn from the environment or from municipal sources, or present in the air used either as compressed air or part of combustion;
(g) present in a pesticide or herbicide when used in agricultural applications;
(h) present in crude, lube, or fuel oils or other petroleum materials being held for direct wholesale or retail sale; or
(i) present in crude or fuel oils used in combustion to produce electricity, steam or heat except when production of electricity, steam or heat is the primary business of a facility.

Toxic or Hazardous Substance List means the list of toxic or hazardous substances established pursuant to M.G.L. c. 21I, § 9 and 301 CMR 41.00.

Toxics User means the following:
(a) any person who owns or operates any facility that manufactures, processes or otherwise uses any toxic or hazardous substance and that is classified in the Standard Industrial Classification (SIC) Codes 10 through 14, 20 through 40, 44 through 51, 72, 73, 75 and/or 76, or the corresponding North American Industry Classification System (NAICS) codes.
(b) If a person owns a facility, and that person's only interest in the facility is ownership of the real estate upon which the facility is operated, then, with respect to that facility, that person is not a toxics user. This includes, without limitation, owners of facilities such as industrial parks, all or part of which are leased to persons who operate establishments within SIC Codes 10 through 14, 20 through 40, 44 through 51, 72, 73, 75 and/or 76, or the corresponding NAICS codes, where the owner has no other business interest in the operation of the facility or establishment.

Toxics Use Reduction Institute or Institute mean the Toxics Use Reduction Institute established pursuant to M.G.L. c. 21I, § 6.

41.03: Toxic or Hazardous Substance List

(1) For calendar year reporting period 2002 and thereafter, the toxic or hazardous substance list shall consist of the substances identified on the toxic chemical list pursuant to section 313 of EPCRA as of January 1, 2002 and the substances listed pursuant to sections 101(14) and 102 of CERCLA as of January 1, 2002, excluding the following substances:
(a) copper, nickel, chromium, cobalt or manganese in a solid or molten metal alloy, but not including aerosols, where aerosol is defined as airborne particles less than 50 μm in diameter;
(b) chromium III oxide;
(c) hydroquinone, provided however that hydroquinone shall not be delisted for toxics users who manufacture hydroquinone;
(d) acetic acid at concentrations less than or equal to 12%;
(e) zinc oxide;
(f) radionuclides;
(g) silver-copper mixture when contained in an alloy form, but not including aerosols of the alloy where aerosol is defined as airborne particles less than 50 μm in diameter;
(h) zero valance silver and copper, but not including aerosols of silver-copper alloy where aerosol is defined as airborne particles less than 50 μm in diameter; and
(i) zinc stearate.

(2) For calendar year reporting period 2002 and thereafter, the toxic or hazardous substance list shall include crystalline silica less than ten microns in size and used in the following processes: abrasive blasting and molding.

(3) For calendar year reporting period 2008, the substances listed pursuant to sections 101(14) and 102 of CERCLA as of January 1, 2002, shall be retained on the toxic or

hazardous substance list, excluding the substances specified in 301 CMR 41.03(1)(a) through (i).

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(4) For calendar year reporting period 2009, the substances listed pursuant to sections 101(14) and 102 of CERCLA as of January 1, 2008, shall be retained on the toxic or hazardous substance list, excluding the substances specified in 301 CMR 41.03(1)(a) through (i) and 301 CMR 41.03(6).

(5) For calendar year reporting period 2010 and thereafter, the substances listed pursuant to §§ 101(14) and 102 of CERCLA as of January 1, 2008, shall be retained on the toxic or hazardous substance list, excluding:

(a) the substances specified in 301 CMR 41.03(1)(a) through (i);
(b) the substances specified in 301 CMR 41.03(6); and
(c) the following substances:

CAS #	Chemical Name
124-04-9	Adipic acid
1066-33-7	Ammonium bicarbonate
12125-02-9	Ammonium chloride
7773-06-0	Ammonium sulfamate
628-63-7	Amyl acetate
110-17-8	Fumaric acid
110-16-7	Maleic acid

(6) The following substances shall no longer be individually retained on the toxic or hazardous substance list, except that any substance that belongs to a chemical category listed pursuant to § 313 of EPCRA shall remain subject to reporting as part of the § 313 EPCRA category:

CAS #	Chemical Name
7789-09-5	Ammonium bichromate
7788-98-9	Ammonium chromate
1762-95-4	Ammonium thiocyanate
7803-55-6	Ammonium vanadate
7647-18-9	Antimony pentachloride
28300-74-5	Antimony potassium tartrate
7789-61-9	Antimony tribromide
10025-91-9	Antimony trichloride
7783-56-4	Antimony trifluoride
1309-64-4	Antimony trioxide
11096-82-5	Aroclor 1260
11097-69-1	Aroclor 1254
11104-28-2	Aroclor 1221
11141-16-5	Aroclor 1232
12672-29-6	Aroclor 1248
12674-11-2	Aroclor 1016
53469-21-9	Aroclor 1242
7778-39-4	Arsenic acid
1327-52-2	Arsenic acid
1303-32-8	Arsenic disulfide
1303-28-2	Arsenic pentoxide
1327-53-3	Arsenic trioxide
1303-33-9	Arsenic trisulfide
1327-53-3	Arsenous oxide
7784-34-1	Arsenous trichloride
542-62-1	Barium cyanide
56-55-3	Benz[a]anthracene
205-99-2	Benzo[b]fluoranthene
207-08-9	Benzo[k]fluoranthene
189-55-9	Benzo[r,s,t]pentaphene
218-01-9	Benzo[a]phenanthrene

50-32-8	Benzo[a]pyrene

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CAS #	Chemical Name (continued)
7787-47-5	Beryllium chloride
7787-49-7	Beryllium fluoride
7787-55-5	Beryllium nitrate
13597-99-4	Beryllium nitrate
543-90-8	Cadmium acetate
7789-42-6	Cadmium bromide
10108-64-2	Cadmium chloride
7778-44-1	Calcium arsenate
52740-16-6	Calcium arsenite
13765-19-0	Calcium chromate
592-01-8	Calcium cyanide
144-34-3	Carbamodithioic acid, dimethyl-,tetraanhydrosulfid with orthothioselenious acid (selenium, tetratis (dimethyldithiocarbamate))
59-50-7	p-Chloro-m-cresol
95-57-8	2-Chlorophenol
7005-72-3	4-Chlorophenyl phenyl ether
1066-30-4	Chromic acetate
7738-94-5	Chromic acid
11115-74-5	Chromic acid
10101-53-8	Chromic sulfate
10049-05-5	Chromous chloride
218-01-9	Chrysene
7789-43-7	Cobaltous bromide
544-18-3	Cobaltous formate
14017-41-5	Cobaltous sulfamate
544-92-3	Copper cyanide
137-29-1	Copper, bis(dimethylcarbamodithioato-S-S)- (copper dimethyldithiocarbamate)
142-71-2	Cupric acetate
12002-03-8	Cupric acetoarsenite
7447-39-4	Cupric chloride
3251-23-8	Cupric nitrate
5893-66-3	Cupric oxalate
7758-98-7	Cupric sulfate
815-82-7	Cupric tartrate
10380-29-7	Cupric sulfate, ammoniated
57-12-5	Cyanides (soluble salts and complexes)
460-19-5	Cyanogen
506-68-3	Cyanogen bromide
506-77-4	Cyanogen chloride ((CN)Cl)
53-70-3	Dibenz[a,h]anthracene
189-55-9	Dibenz[a,i]pyrene
87-65-0	2,6-Dichlorophenol
696-28-6	Dichlorophenylarsine
692-42-2	Diethylarsine
57-97-6	7,12-Dimethylbenz[a]anthracene
460-19-5	Ethanedinitrile
10421-48-4	Ferric nitrate
206-44-0	Fluoranthene
301-04-2	Lead acetate
7784-40-9	Lead arsenate
7645-25-2	Lead arsenate
10102-48-4	Lead arsenate
7758-95-4	Lead chloride
13814-96-5	Lead fluoborate
7783-46-2	Lead fluoride
10101-63-0	Lead iodide

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CAS #	Chemical Name (continued)
10099-74-8	Lead nitrate
7446-27-7	Lead phosphate
7428-48-0	Lead stearate
56189-09-4	Lead stearate
52652-59-2	Lead stearate
1072-35-1	Lead stearate
1335-32-6	Lead subacetate
7446-14-2	Lead sulfate
15739-80-7	Lead sulfate
1314-87-0	Lead sulfide
592-87-0	Lead thiocyanate
14307-35-8	Lithium chromate
15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S)-(manganesedimethyldithiocarbamate)
592-04-1	Mercuric cyanide
10045-94-0	Mercuric nitrate
7783-35-9	Mercuric sulfate
592-85-8	Mercuric thiocyanate
7782-86-7	Mercurous nitrate
10415-75-5	Mercurous nitrate
628-86-4	Mercury fulminate
56-49-5	3-Methylcholanthrene
15699-18-0	Nickel ammonium sulfate
13463-39-3	Nickel carbonyl
7718-54-9	Nickel chloride
37211-05-5	Nickel chloride
557-19-7	Nickel cyanide
12054-48-7	Nickel hydroxide
14216-75-2	Nickel nitrate
7786-81-4	Nickel sulfate
54-11-5	Nicotine
54-11-5	Nicotine and salts
12002-03-8	Paris green
696-28-6	Phenyl dichloroarsine
62-38-4	Phenylmercuric acetate
62-38-4	Phenylmercury acetate
7784-41-0	Potassium arsenate
10124-50-2	Potassium arsenite
7778-50-9	Potassium bichromate
7789-00-6	Potassium chromate
151-50-8	Potassium cyanide
7722-64-7	Potassium permanganate
506-61-6	Potassium silver cyanide
54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-
7783-00-8	Selenious acid
12039-52-0	Selenious acid, dithallium(1+) salt
7446-08-4	Selenium dioxide
7488-56-4	Selenium sulfide
630-10-4	Selenourea
506-64-9	Silver cyanide
7761-88-8	Silver nitrate
57-24-9	Strychnine, and salts
7631-89-2	Sodium arsenate
7784-46-5	Sodium arsenite
10588-01-9	Sodium bichromate
7775-11-3	Sodium chromate
143-33-9	Sodium cyanide (Na(CN))
7782-82-3	Sodium selenite

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CAS #	Chemical Name (continued)
10102-18-8	Sodium selenite
7789-06-2	Strontium chromate
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)
58-90-2	2,3,4,6-Tetrachlorophenol
78-00-2	Tetraethyl lead
1314-32-5	Thallic oxide
7791-12-0	Thallium chloride TlCl
10031-59-1	Thallium sulfate
563-68-8	Thallium(I) acetate
6533-73-9	Thallium(I) carbonate
10102-45-1	Thallium(I) nitrate
7446-18-6	Thallium(I) sulfate
6533-73-9	Thallous carbonate
7791-12-0	Thallous chloride
7446-18-6	Thallous sulfate
5344-82-1	Thiourea, (2-chlorophenyl)-
25167-82-2	Trichlorophenol
15950-66-0	2,3,4-Trichlorophenol
933-78-8	2,3,5-Trichlorophenol
933-75-5	2,3,6-Trichlorophenol
609-19-8	3,4,5-Trichlorophenol
36478-76-9	Uranyl nitrate
10102-06-4	Uranyl nitrate
1314-62-1	Vanadium pentoxide
27774-13-6	Vanadyl sulfate
81-81-2	Warfarin (also Warfarin and salts)
557-34-6	Zinc acetate
52628-25-8	Zinc ammonium chloride
14639-97-5	Zinc ammonium chloride
14639-98-6	Zinc ammonium chloride
137-30-4	Zinc, bis(dimetylcarbomodithioato-S,S)-, (ziram)
14324-55-1	Zinc, bis(diethylcarbamodithioato-S,S)-(ethyl ziram)
1332-07-6	Zinc borate
7699-45-8	Zinc bromide
3486-35-9	Zinc carbonate
7646-85-7	Zinc chloride
557-21-1	Zinc cyanide
7783-49-5	Zinc fluoride
557-41-5	Zinc formate
7779-86-4	Zinc hydrosulfite
7779-88-6	Zinc nitrate
127-82-2	Zinc phenolsulfonate
1314-84-7	Zinc phosphide
1314-84-7	Zinc phosphide (conc. <= 10%)
1314-84-7	Zinc phosphide (conc. > 10%)
16871-71-9	Zinc silicofluoride
7733-02-0	Zinc sulfate
13746-89-9	Zirconium nitrate

(7) For calendar year reporting period 2010 and thereafter, the toxic or hazardous substance list shall include the following substance:

CAS #	Chemical Name
106-94-5	n-Propyl bromide (1-bromopropane)

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(8) For calendar year reporting period 2012 and thereafter, the toxic or hazardous substance list shall include the following substances, consistent with changes in the toxic chemical list established pursuant to section 313 of EPCRA:

CAS #	Chemical Name
81-49-2	1-Amino-2,4-dibromoanthraquinone
3296-90-0	2,2-bis(Bromomethyl)-1,3 propanediol
110-00-9	Furan
556-52-5	Glycidol
78-79-5	Isoprene
93-15-2	Methyleugenol
91-23-6	o-Nitroanisole
75-52-5	Nitromethane
77-09-8	Phenolphthalein
116-14-3	Tetrafluoroethylene
509-14-8	Tetranitromethane
75-02-5	Vinyl Fluoride

Polycyclic Aromatic Compounds (PACs) category:

CAS #	Chemical Name
42397-64-8	1,6-Dinitropyrene
42397-65-9	1,8-Dinitropyrene
7496-02-8	6-Nitrochrysene
57835-92-4	4-Nitropyrene

(9) For calendar year reporting period 2017 and thereafter, the toxic or hazardous substance list shall include the following substance category, consistent with changes in the toxic chemical list established pursuant to section 313 of EPCRA:

The nonylphenols category consists of these substances:

CAS #	Chemical Name
104-40-5	4-Nonylphenol
11066-49-2	Isononylphenol
25154-52-3	Nonylphenol
26543-97-5	4-Isononylphenol
84852-15-3	4-Nonylphenol, branched
90481-04-2	Nonylphenol, branched

(10) For calendar year reporting period 2018 and thereafter, the toxic or hazardous substance list shall include the following substance category, consistent with changes in the toxic chemical list established pursuant to section 313 of EPCRA:

The hexabromocyclododecane (HBCD) category consists of these substances:

CAS #	Chemical Name
25637-99-4	Hexabromocyclododecane
3194-55-6	1,2,5,6,9,10 hexabromocyclododecane

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(11) For calendar year reporting period 2019 and thereafter, the toxic or hazardous substance list shall include the following substance category:

The C1-C4 halogenated hydrocarbons/halocarbons not otherwise listed (C1-C4 NOL) category consists of these substances:

C1-C4 NOL includes any chemical substance that has four or fewer carbons, at least one halogen, and only hydrogen as the other constituent, that are not already individually listed. This includes fully halogenated chemicals that contain no hydrogen.

(12) For calendar year reporting period 2020 and thereafter, the toxic or hazardous substance list shall include the following substance category, consistent with changes in the toxic chemical list established pursuant to EPCRA § 313:

The nonylphenol ethoxylates (NPE) category consists of these substances:

CAS #	Chemical Name
7311-27-5	Ethanol, 2-[2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]-
9016-45-9	Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-
20427-84-3	Ethanol, 2-[2-(4-nonylphenoxy)ethoxy]-
26027-38-3	Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy-
26571-11-9	3,6,9,12,15,18,21,24-Octaoxahexacosan-1-ol, 26-(nonylphenoxy)-
27176-93-8	Ethanol, 2-[2-(nonylphenoxy)ethoxy]-
27177-05-5	3,6,9,12,15,18,21-Heptaoxatricosan-l-ol, 23-(nonylphenoxy)-
27177-08-8	3,6,9,12,15,18,21,24,27-Nonaoxanonacosan-1-ol, 29-(nonylphenoxy)-
27986-36-3	Ethanol, 2-(nonylphenoxy)-
37205-87-1	Poly(oxy-1,2-ethanediyl), α-(isononylphenyl)-ω-hydroxy-
51938-25-1	Poly(oxy-1,2-ethanediyl), α-(2-isononylphenyl)-ω-hydroxy-
68412-54-4	Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched
127087-87-0	Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy-, branched

(13) For calendar year reporting period 2021 and thereafter, the toxic or hazardous substance list shall include the following substances, consistent with changes in the toxic chemical list established pursuant to EPCRA § 313:

CAS #	Chemical Name
307-35-7	Perfluorooctylsulfonyl fluoride
307-55-1	Perfluorododecanoic acid
335-66-0	Octanoyl fluoride, pentadecafluoro-
335-67-1	Perfluorooctanoic acid
335-71-7	1-Heptanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
335-76-2	Perfluorodecanoic acid
335-95-5	Sodium perfluorooctanoate
355-46-4	Perfluorohexanesulfonic acid
375-95-1	Perfluorononanoic acid
376-06-7	Perfluorotetradecanoic acid
376-14-7	2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl methacrylate
376-27-2	Methyl perfluorooctanoate
383-07-3	2-[Butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate
423-82-5	2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate
678-39-7	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
865-86-1	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-
1652-63-7	3-[[(Heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-1-propanaminium iodide
1691-99-2	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide

1763-23-1	Perfluorooctane sulfonic acid

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CAS #	Chemical Name
1996-88-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester
2043-53-0	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-
2043-54-1	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoro-12-iodo-
2144-54-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester
2263-9-4	1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
2795-39-3	Potassium perfluorooctanesulfonate
2991-51-7	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt
3107-18-4	Cyclohexanesulfonic acid, undecafluoro-, potassium salt
3825-26-1	Ammonium perfluorooctanoate
3871-99-6	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, potassium salt
3872-25-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, potassium salt
4151-50-2	Sulfluramid
4980-53-4	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl ester
6014-75-1	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl ester
13252-13-6	Hexafluoropropylene oxide dimer acid
16517-11-6	Octadecanoic acid, pentatriacontafluoro-
17202-41-4	1-Nonanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-nonadecafluoro-, ammonium salt
17741-60-5	1,1,2,2-Tetrahydroperfluorododecyl acrylate
21652-58-4	Perfluorooctyl Ethylene
24448-09-7	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-
25268-77-3	2-[[(Heptadecafluorooctyl)sulfonyl]methylamino]ethyl acrylate
27619-90-5	1-Decanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
27619-91-6	1-Dodecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-
27905-45-9	1,1,2,2-Tetrahydroperfluorodecyl acrylate
29081-56-9	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt
29117-08-6	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-
29457-72-5	Lithium (perfluorooctane)sulfonate
30046-31-2	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafluoro-14-iodo-
31506-32-8	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-
34362-49-7	1,1,2,2-Tetrahydroperfluorohexadecyl acrylate
34395-24-9	1,1,2,2-Tetrahydroperfluorotetradecyl acrylate
37338-48-0	Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-
38006-74-5	1-Propanaminium,

	3-[[(heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, chloride
39239-77-5	1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluoro-
52166-82-2	1-Propanaminium, N,N,N-trimethyl-3-[[(tridecafluorohexyl)sulfonyl]amino]-, chloride
55910-10-6	Glycine, N-[(heptadecafluorooctyl)sulfonyl]-N-propyl-, potassium salt
56372-23-7	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]-ω-hydroxy-
56773-42-3	Ethanaminium, N,N,N-triethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonic acid (1:1)
59071-10-2	2-Propenoic acid, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
60270-55-5	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, potassium salt
60699-51-6	1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluoro-
61660-12-6	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-(trimethoxysilyl)propyl]-
61798-68-3	Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, salt with 4-methylbenzenesulfonic acid (1:1)
62037-80-3	Hexafluoropropylene oxide dimer acid ammonium salt
65104-65-6	1-Eicosanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20,20-heptatriacontafluoro-
65104-67-8	1-Octadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafluoro-
65510-55-6	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafluoro-16-iodo-
65530-59-8	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, 2-hydroxy-1,2,3-propanetricarboxylate (3:1)
65530-61-2	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-
65530-62-3	Poly(difluoromethylene), α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-
65530-63-4	Ethanol, 2,2'-iminobis-, compd. with α-fluoro-ω-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (2:1)
65530-64-5	Ethanol, 2,2'-iminobis-, compd. with α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoropoly(difluoromethylene)] (1:1)
65530-65-6	Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxooctadecyl)oxy]ethyl]-
65530-66-7	Poly(difluoromethylene), α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-
65530-69-0	Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-, lithium salt
65530-70-3	Poly(difluoromethylene), α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-, ammonium salt
65530-71-4	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, monoammonium salt
65530-72-5	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, diammonium salt
65530-74-7	Ethanol, 2,2'-iminobis-, compd. with α-fluoro-ω-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (1:1)
65530-83-8	Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-

65545-80-4	Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, ether with α-fluoro-ω-(2-hydroxyethyl)poly(difluoromethylene) (1:1)
65605-56-3	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-57-4	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, hydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-58-5	2-Propenoic acid, esters, 2-methyl-, dodecyl ester, polymer with α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoro methylene)
65605-59-6	2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoro methylene) and N-(hydroxymethyl)-2-propenamide
65605-73-4	Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, homopolymer
65636-35-3	Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-ethylhexyl 2-methyl-2-propenoate, α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]poly(difluorome thylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
67584-42-3	Cyclohexanesulfonic acid, decafluoro(pentafluoroethyl)-, potassium salt
67584-52-5	Glycine, N-ethyl-N-[(undecafluoropentyl)sulfonyl]-, potassium salt
67584-53-6	Glycine, N-ethyl-N-[(tridecafluorohexyl)sulfonyl]-, potassium salt
67584-56-9	2-Propenoic acid, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl ester
67584-57-0	2-Propenoic acid, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl ester
67584-58-1	1-Propanaminium, N,N,N-trimethyl-3-[[(pentadecafluoroheptyl)sulfonyl]amino]-, iodide
67584-62-7	Glycine, N-ethyl-N-[(pentadecafluoroheptyl)sulfonyl]-, potassium salt
67905-19-5	Perfluoropalmitic acid
67906-42-7	1-Decanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heneicosafluoro-, ammonium salt
67969-69-1	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosph onooxy)ethyl]-, diammonium salt
68084-62-8	2-Propenoic acid, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
68140-18-1	Thiols, C4-10, γ-ω-perfluoro
68140-20-5	Thiols, C6-12, γ-ω-perfluoro
68140-21-6	Thiols, C10-20, γ-ω-perfluoro
68141-02-6	Chromium(III) perfluorooctanoate
68156-01-4	Cyclohexanesulfonic acid, nonafluorobis(trifluoromethyl)-, potassium salt
68156-07-0	Cyclohexanesulfonic acid, decafluoro(trifluoromethyl)-, potassium salt
68187-25-7	Butanoic acid, 4-[[3-(dimethylamino)propyl]amino]-4-oxo-, 2(or 3)-[(γ-ω-perfluoro-C6-20-alkyl)thio] derivs.
68187-47-3	1-Propanesulfonic acid, 2-methyl-, 2-[[1-oxo-3-[(γ-ω-perfluoro-C4-16-alkyl)thio]propyl]amino] derivs., sodium salts
68188-12-5	Alkyl iodides, C4-20, γ-ω-perfluoro
68227-96-3	2-Propenoic acid, butyl ester, telomer with 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,4- butanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]po ly(oxy-1,4-butanediyl), 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2- propenoate,

	2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and 1-octanethiol
68239-43-0	2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoro methylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
68259-07-4	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, ammonium salt
68259-08-5	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt
68259-09-6	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, ammonium salt
68259-38-1	Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]-ω-hydroxy-
68259-39-2	Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-hydroxy-
68298-62-4	2-Propenoic acid, 2-[butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[butyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, methyloxirane polymer with oxirane di-2-propenoate, methyloxirane polymer with oxirane mono-2-propenoate and 1-octanethiol
68298-80-6	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]-ω-hydroxy-
68298-81-7	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-hydroxy-
68310-17-8	Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]-ω-hydroxy-
68391-08-2	Alcohols, C8-14, γ-ω-perfluoro
68412-68-0	Phosphonic acid, perfluoro-C6-12-alkyl derivs.
68412-69-1	Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs.
68515-62-8	1,4-Benzenedicarboxylic acid, dimethyl ester, reaction products with bis(2-hydroxyethyl)terephthalate, ethylene glycol, α-fluoro-ω-(2-hydroxyethyl)poly(difluoromethylene), hexakis(methoxymethyl)melamine and polyethylene glycol
68555-74-8	1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-75-9	1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-76-0	1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-81-7	1-Propanaminium, N,N,N-trimethyl-3-[[(pentadecafluoroheptyl)sulfonyl]amino]-, chloride
68555-91-9	2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with 2- [ethyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate
68758-57-6	1-Tetradecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluoro-
68867-60-7	2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2- [methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2- propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate,

	2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl)
68957-55-1	1-Propanaminium, N,N,N-trimethyl-3-[[(undecafluoropentyl)sulfonyl]amino]-, chloride
68957-57-3	1-Propanaminium, N,N,N-trimethyl-3-[[(undecafluoropentyl)sulfonyl]amino]-, iodide
68957-58-4	1-Propanaminium, N,N,N-trimethyl-3-[[(tridecafluorohexyl)sulfonyl]amino]-, iodide
68957-62-0	1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
68958-60-1	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-methoxy-
68958-61-2	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-methoxy-
70225-14-8	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-15-9	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-16-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-17-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70969-47-0	Thiols, C8-20, γ-ω-perfluoro, telomers with acrylamide
70983-59-4	Poly(oxy-1,2-ethanediyl), α-methyl-ω-hydroxy-, 2-hydroxy-3-[(γ-ω-perfluoro-C6-20-alkyl)thio]propyl ethers
70983-60-7	1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-, 3-[(γ-ω-perfluoro-C6-20-alkyl)thio] derivs., chlorides
71608-60-1	Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C8-20-alkyl)thio] derivs.
72623-77-9	Fatty acids, C6-18, perfluoro, ammonium salts
72968-38-8	Fatty acids, C7-13, perfluoro, ammonium salts
74499-44-8	Phosphoric acid, γ-ω-perfluoro-C8-16-alkyl esters, compds. with diethanolamine
78560-44-8	Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-
80010-37-3	Poly(difluoromethylene), α-fluoro-ω-[2-sulphoethyl)-
83048-65-1	Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy-
95144-12-0	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, ammonium salt
97553-95-2	Thiocyanic acid, γ-ω-perfluoro-C4-20-alkyl esters
97659-47-7	Alkenes, C8-14 α-, δ-ω-perfluoro
118400-71-8	Disulfides, bis(γ-ω-perfluoro-C6-20-alkyl)
123171-68-6	Poly(difluoromethylene), α-[2-(acetyloxy)-3-[(carboxymethyl)dimethylammonio]propyl]-ω-fluoro-, inner salt
125476-71-3	Silicic acid (H4SiO4), disodium salt, reaction products with chlorotrimethylsilane and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decanol
135228-60-3	Hexane, 1,6-diisocyanato-, homopolymer, γ-ω-perfluoro-C6-20-alc.-blocked

41.03: continued

CAS #	Chemical Name
142636-88-2	2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-propenoate
143372-54-7	Siloxanes and Silicones, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy Me, hydroxy Me, Me octyl, ethers with polyethylene glycol mono-Me ether
148240-85-1	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C4-10-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-87-3	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C6-12-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-89-5	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C10-20-alkyl)thio]methyl] derivs., phosphates, ammonium salts
150135-57-2	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with Bu acrylate, γ-ω-perfluoro-C8-14-alkyl acrylate and polyethylene glycol monomethacrylate, 2,2'-azobis[2,4-dimethylpentanenitrile]-initiated
178094-69-4	1-Octanesulfonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, potassium salt
178535-23-4	Fatty acids, linseed-oil, γ-ω-perfluoro-C8-14-alkyl esters
180582-79-0	Sulfonic acids, C6-12-alkane, γ-ω-perfluoro, ammonium salts
182176-52-9	Ethaneperoxoic acid, reaction products with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl thiocyanate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl thiocyanate
196316-34-4	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with γ-ω-perfluoro-C10-16-alkyl acrylate and vinyl acetate, acetates
200513-42-4	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10- heptadecafluorodecyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate
238420-68-3	Propanedioic acid, mono(γ-ω-perfluoro-C8-12-alkyl) derivs., di-me esters
238420-80-9	Propanedioic acid, mono(γ-ω-perfluoro-C8-12-alkyl) derivs., bis[4-(ethenyloxy)butyl] esters
1078142-10-5	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C6-12-alkyl)thio]methyl] derivs., polymers with 2,2-bis[[(γ-ω-perfluoro-C10-20-alkyl)thio]methyl]-1,3-propanediol, 1,6-diisocyanato-2,2,4(or 2,4,4)-trimethylhexane, 2-heptyl-3,4-bis(9-isocyanatononyl)-1-pentylcyclohexane and 2,2'-(methylimino)bis[ethanol]
1078712-88-5	Thiols, C4-20, γ-ω-perfluoro, telomers with acrylamide and acrylic acid, sodium salts
1078715-61-3	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-[2-[(γ-ω-perfluoro-C4-20-alkyl)thio]acetyl] derivs., inner salts

(14) For calendar year reporting period 2022 and thereafter, the toxic or hazardous substance list shall include the following substance category:

The certain per- and polyfluoroalkyl substances not otherwise listed (Certain PFAS NOL) category consists of these substances:

Certain PFAS NOL includes those PFAS that contain a perfluoroalkyl moiety with three or more carbons (*e.g.*, -C_nF2_n-, n $\geq$ 3; or CF3-C_nF2_n- , n $\geq$ 2) or a perfluoroalkylether moiety with two or more carbons (*e.g.*, -$C_nF2_nOC_mF2_m$ $\geq$ or -$C_nF2_nOC_mF_m$-, n and m $\geq$ 1), wherein for the example structures shown, the dash (.) is not a bond to a hydrogen and may represent a straight or branched structure, that are not otherwise listed.

(15) For calendar year reporting period 2023 and thereafter, the toxic or hazardous substance list shall include the following substances, consistent with changes in the toxic chemical list established pursuant to EPCRA § 313:

2395-00-8	Potassium perfluorooctanoate
335-93-3	Silver(I) perfluorooctanoate

507-63-1	Perfluorooctyl iodide
65104-45-2	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate
203743-03-7	2-Propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, γ-ω-perfluoro-C10-16-alkyl acrylate and stearyl methacrylate
29420-49-3	Potassium perfluorobutane sulfonate
375-73-5	Perfluorobutane sulfonic acid
45187-15-3	Perfluorobutanesulfonate

41.04: Amendment of the Toxic or Hazardous Substance List

(1) The council may amend the toxic or hazardous substance list by adding or deleting substances. The council shall add no more than ten substances in any year. The council shall delete no more than ten substances in any year. Any addition or deletion of a substance shall take effect the calendar year immediately following the year in which the addition or deletion is codified in 301 CMR 41.00.

41.04: continued

(2) The council shall adjust the toxic or hazardous substance list each year to add or delete substances consistent with changes in the toxic chemical list established pursuant to EPCRA § 313 and with changes in the lists of chemicals established pursuant to CERCLA §§ 101(14) and 102. The council shall make additions and deletions under 301 CMR 41.04(2) in addition to any actions it takes under 301 CMR 41.04(1).

(3) In adding or deleting substances under 301 CMR 41.04(1), the council shall consider recommendations from the Toxics Use Reduction Institute and the Science Advisory Board.

41.05: Designation of Higher Hazard and Lower Hazard Substances

(1) The council shall designate substances as higher hazard substances, lower hazard substances, or may leave substances as otherwise uncategorized substances. The council shall designate no more than ten higher hazard substances and no more than ten lower hazard substances in any year. Any designation of a substance as a higher hazard or a lower hazard substance shall not take effect until the calendar year immediately following the year in which the designation is codified in 301 CMR 41.00.

(2) In designating substances as higher hazard or lower hazard substances under 301 CMR 41.05(1), the council shall consult with the Toxics Use Reduction Institute and the Science Advisory Board.

41.06: Higher Hazard Substances

(1) For calendar year reporting period 2008 and thereafter, those substances identified as chemicals of special concern in 40 CFR Part 372.28 shall be designated as higher hazard substances.

(2) For calendar year reporting period 2008 and thereafter, the following substances shall be designated as higher hazard substances:

CAS #	Chemical Name
79-01-6	Trichloroethylene
7440-43-9	Cadmium
	Cadmium Compounds

(3) For calendar year reporting period 2009 and thereafter, the following substance shall be designated as a higher hazard substance:

CAS #	Chemical Name
127-18-4	Perchlorethylene

(4) For calendar year reporting period 2012 and thereafter, the following substances shall be designated as higher hazard substances:

CAS #	Chemical Name
50-00-0	Formaldehyde
	Hexavalent Chromium Compounds

(5) For calendar year reporting period 2014 and thereafter, the following substance shall be designated as a higher hazard substance:

CAS #	Chemical Name
75-09-2	Methylene chloride

41.04: continued

(6) For calendar year reporting period 2016 and thereafter, the following substances shall be designated as higher hazard substances:

CAS #	Chemical Name
106-94-5	1-Bromopropane
68-12-2	Dimethylformamide
7664-39-3	Hydrogen fluoride
	Cyanide compounds

(7) For calendar year reporting period 2017 and thereafter, the following substances shall be designated as higher hazard substances:

CAS #	Chemical Name
584-84-9	2,4 - Toluene diisocyanate
91-08-7	2,6 - Toluene diisocyanate
26471-62-5	Toluene diisocyanate - mixed isomers

41.07: Lower Hazard Substances

(1) For calendar year reporting period 2009 and thereafter, the following substances shall be designated as lower hazard substances:

CAS #	Chemical Name
78-83-1	Isobutyl alcohol
78-92-2	Sec-butyl alcohol
71-36-3	N-butyl alcohol

(2) For calendar year reporting period 2010 and thereafter, the following substances shall be designated as lower hazard substances:

CAS #	Chemical Name
123-86-4	Butyl acetate
110-19-0	Isobutyl acetate
7705-08-0	Ferric chloride
10028-22-5	Ferric sulfate
7758-94-3	Ferrous chloride
7720-78-7	Ferrous sulfate
7782-63-0	Ferrous sulfate

REGULATORY AUTHORITY

301 CMR 41.00: M.G.L. c. 21I, §§ 4 and 9.

NON-TEXT PAGE