

## Agents Classified by the IARC Monographs, Volumes 1–123

CAS No.	Agent	Group	Volume	Year <sup>1</sup>
026148-68-5	A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole)	2B	40, Sup 7	1987
000083-32-9	Acenaphthene	3	92	2010
025732-74-5	Acepyrene (3,4-dihydrocyclopenta[cd]pyrene)	3	92	2010
000075-07-0	Acetaldehyde	2B	36, Sup 7, 71	1999
000075-07-0	Acetaldehyde associated with consumption of alcoholic beverages	1	100E	2012
000060-35-5	Acetamide	2B	7, Sup 7, 71	1999
000103-90-2	Acetaminophen (see Paracetamol)			
	Acheson process, occupational exposure associated with	1	111	2017
059277-89-3	Aciclovir	3	76	2000
	Acid mists, strong inorganic	1	54, 100F	2012
000494-38-2	Acridine orange	3	16, Sup 7	1987
008018-07-3	Acriflavinium chloride	3	13, Sup 7	1987
000107-02-8	Acrolein	3	63, Sup 7	1995
000079-06-1	Acrylamide (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	60, Sup 7	1994
000079-10-7	Acrylic acid	3	19, Sup 7, 71	1999
	Acrylic fibres	3	19, Sup 7	1987
000107-13-1	Acrylonitrile	2B	71	1999
	Acrylonitrile-butadiene-styrene copolymers	3	19, Sup 7	1987
000050-76-0	Actinomycin D	3	10, Sup 7	1987
023214-92-8	Adriamycin (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	10, Sup 7	1987
003688-53-7	AF-2 [2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide]	2B	31, Sup 7	1987
001402-68-2	Aflatoxins (B1, B2, G1, G2, M1)	1	Sup 7, 56, 82, 100F,	2012
002757-90-6	Agaritine	3	31, Sup 7	1987
	Alcoholic beverages	1	44, 96, 100E	2012
000116-06-3	Aldicarb	3	53	1991
000309-00-2	Aldrin (see Dieldrin, and aldrin metabolized to dieldrin)			
	<i>Aloe vera</i> , whole leaf extract	2B	108	2016
000107-05-1	Allyl chloride	3	36, Sup 7, 71	1999
000057-06-7	Allyl isothiocyanate	3	73, Sup 7	1999
002835-39-4	Allyl isovalerate	3	36, Sup 7, 71	1999
	Alpha particles (see Radionuclides)			
	Aluminium production	1	34, Sup 7, 92, 100F	2012
000915-67-3	Amaranth	3	8, Sup 7	1987

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004657-93-6	5-Aminoacenaphthene	3	16, Sup 7	1987
000117-79-3	2-Aminoanthraquinone	3	27, Sup 7	1987
000060-09-3	<i>para</i> -Aminoazobenzene	2B	8, Sup 7	1987
000097-56-3	<i>ortho</i> -Aminoazotoluene	2B	8, Sup 7	1987
000150-13-0	<i>para</i> -Aminobenzoic acid	3	16, Sup 7	1987
000092-67-1	4-Aminobiphenyl	1	1, Sup 7, 99, 100F	2012
000095-85-2	2-Amino-4-chlorophenol	2B	123	In prep.
000081-49-2	1-Amino-2,4-dibromoanthraquinone	2B	101	2013
000082-28-0	1-Amino-2-methylantraquinone	3	27, Sup 7	1987
000712-68-5	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	2B	7, Sup 7	1987
000099-57-0	2-Amino-4-nitrophenol	3	57	1993
000121-88-0	2-Amino-5-nitrophenol	3	57	1993
000119-34-6	4-Amino-2-nitrophenol	3	16, Sup 7	1987
000121-66-4	2-Amino-5-nitrothiazole	3	31, Sup 7	1987
002432-99-7	11-Aminoundecanoic acid	3	39, Sup 7	1987
000061-82-5	Amitrole (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	79, Sup 7	2001
000069-53-4	Ampicillin	3	50	1990
051264-14-3	Amsacrine	2B	76	2000
	Androgenic (anabolic) steroids	2A	Sup 7	1987
	Anaesthetics, volatile	3	11, Sup 7	1987
000523-50-2	Angelicin plus ultraviolet A radiation	3	40, Sup 7	1987
000062-53-3	Aniline	3	27, Sup 7	1987
000090-04-0	<i>ortho</i> -Anisidine	2B	Sup 7, 73	1999
000104-94-9	<i>para</i> -Anisidine	3	27, Sup 7	1987
000191-26-4	Anthanthrene	3	92, Sup 7	2010
000120-12-7	Anthracene	3	92, Sup 7	2010
000118-92-3	Anthranilic acid	3	16, Sup 7	1987
000084-65-1	Anthraquinone	2B	101	2013
001309-64-4	Antimony trioxide	2B	47	1989
001345-04-6	Antimony trisulfide	3	47	1989
000052-46-0	Apholate	3	9, Sup 7	1987
024938-64-5	<i>para</i> -Aramid fibrils	3	68	1997
000140-57-8	Aramite®	2B	5, Sup 7	1987
	Areca nut	1	85, 100E	2012

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000313-67-7	Aristolochic acid (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	82, 100A	2012
000313-67-7	Aristolochic acid, plants containing	1	82, 100A	2012
007440-38-2	Arsenic and inorganic arsenic compounds	1	23, Sup 7, 100C	2012
064436-13-1	Arsenobetaine and other organic arsenic compounds that are not metabolized in humans	3	100C	2012
	Art glass, glass containers and pressed ware (manufacture of)	2A	58	1993
001332-21-4 77536-67-5* 012172-73-5 77536-66-4* 012001-29-5 012001-28-4 77536-68-6*	Asbestos (all forms, including actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite) (NB: Mineral substances (e.g. talc or vermiculite) that contain asbestos should also be regarded as <i>carcinogenic to humans</i> ) *The presence of an asterisk indicates that the registration is for a substance which CAS does not treat in its regular CA index	1	14, Sup 7, 100C	2012
001912-24-9	Atrazine (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	53, 73	1999
012174-11-7	Attapulgit (see Palygorskite)			
000492-80-8	Auramine	2B	1, Sup 7, 99, 100F	2012
	Auramine production	1	Sup 7, 99, 100F	2012
012192-57-3	Aurothioglucose	3	13, Sup 7	1987
000320-67-2	Azacitidine (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	50	1990
000115-02-6	Azaserine	2B	10, Sup 7	1987
000446-86-6	Azathioprine	1	26, Sup 7, 100A	2012
000151-56-4	Aziridine (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	9, Sup 7, 71	1999
001072-52-2	2-(1-Aziridinyl)ethanol	3	9, Sup 7	1987
000800-24-8	Aziridyl benzoquinone	3	9, Sup 7	1987
000103-33-3	Azobenzene	3	8, Sup 7	1987
000202-94-8	11 <i>H</i> -Benz[ <i>bc</i> ]aceanthrylene	3	92	2010

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000202-33-5	Benz[ <i>j</i> ]aceanthrylene (NB: Overall evaluation upgraded to Group 2B with supporting mechanistic and other relevant data)	2B	92	2010
000211-91-6	Benz[ <i>l</i> ]aceanthrylene	3	92	2010
000225-11-6	Benz[ <i>a</i> ]acridine	3	32, Sup 7, 103	2013
000225-51-4	Benz[ <i>c</i> ]acridine	3	32, Sup 7, 103	2013
000056-55-3	Benz[ <i>a</i> ]anthracene	2B	92, Sup 7	2010
000071-43-2	Benzene	1	29, Sup 7, 100F, 120	In prep.
000092-87-5	Benzidine	1	29, Sup 7, 99, 100F	2012
	Benzidine, dyes metabolized to (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	99, 100F	2012
000214-17-5	Benzo[ <i>b</i> ]chrysene	3	92	2010
000196-78-1	Benzo[ <i>g</i> ]chrysene	3	92	2010
000203-33-8	Benzo[ <i>a</i> ]fluoranthene	3	92, Sup 7	2010
000205-99-2	Benzo[ <i>b</i> ]fluoranthene	2B	92	2010
000203-12-3	Benzo[ <i>ghi</i> ]fluoranthene	3	92, Sup 7	2010
000205-82-3	Benzo[ <i>j</i> ]fluoranthene	2B	92	2010
000207-08-9	Benzo[ <i>k</i> ]fluoranthene	2B	92	2010
000238-84-6	Benzo[ <i>a</i> ]fluorene	3	92, Sup 7	2010
000243-17-4	Benzo[ <i>b</i> ]fluorene	3	92, Sup 7	2010
000205-12-9	Benzo[ <i>c</i> ]fluorene	3	92, Sup 7	2010
000271-89-6	Benzofuran	2B	63	1995
000239-35-0	Benzo[ <i>b</i> ]naphtho[2,1- <i>d</i> ]thiophene	3	103	2013
000191-24-2	Benzo[ <i>ghi</i> ]perylene	3	92, Sup 7	2010
000195-19-7	Benzo[ <i>c</i> ]phenanthrene (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	92, Sup 7	2010
000119-61-9	Benzophenone	2B	101	2013
000050-32-8	Benzo[ <i>a</i> ]pyrene (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	Sup 7, 92, 100F	2012
000192-97-2	Benzo[ <i>e</i> ]pyrene	3	92, Sup 7	2010
000105-11-3	<i>para</i> -Benzoquinone dioxime	3	29, Sup 7, 71	1999
000094-36-0	Benzoyl peroxide	3	36, Sup 7, 71	1999
000140-11-4	Benzyl acetate	3	40, Sup 7, 71	1999
001694-09-3	Benzyl violet 4B	2B	16, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
007440-41-7	Beryllium and beryllium compounds	1	Sup 7, 58, 100C	2012
	Beta particles (see Radionuclides)			
	Betel quid with tobacco	1	Sup 7, 85, 100E	2012
	Betel quid without tobacco	1	Sup 7, 85, 100E	2012
	Biomass fuel (primarily wood), indoor emissions from household combustion of	2A	95	2010
002168-68-5	Bis(1-aziridinyl)morpholinophosphine sulfide	3	9, Sup 7	1987
003296-90-0	2,2-Bis(bromomethyl)propane-1,3-diol	2B	77	2000
000111-44-4	Bis(2-chloroethyl)ether	3	9, Sup 7, 71	1999
000494-03-1	<i>N,N</i> -Bis(2-chloroethyl)-2-naphthylamine (see Chlornaphazine)			
000154-93-8	Bischloroethyl nitrosourea (BCNU)	2A	26, Sup 7	1987
013483-18-6	1,2-Bis(chloromethoxy)ethane	3	15; Sup 7, 71	1999
056894-91-8	1,4-Bis(chloromethoxymethyl)benzene	3	15; Sup 7, 71	1999
000542-88-1	Bis(chloromethyl)ether; chloromethyl methyl ether	1	4, Sup 7,	2012
000107-30-2	(technical-grade)		100F	
000108-60-1	Bis(2-chloro-1-methylethyl)ether	3	41, Sup 7, 71	1999
002386-90-5	Bis(2,3-epoxycyclopentyl)ether	3	47, 71	1999
000117-81-7	Bis(2-ethylhexyl) phthalate (see Di(2-ethylhexyl) phthalate)			
001675-54-3	Bisphenol A diglycidyl ether (Araldite)	3	47, 71	1999
	Bisulfites	3	54	1992
008052-42-4	Bitumens, extracts of steam-refined and air-refined; steam-refined, cracking-residue and air-refined bitumens (see Bitumens, occupational exposures)		35, Sup 7	1987
	Bitumens, occupational exposure to hard bitumens and their emissions during mastic asphalt work	2B	103	2013
064742-93-4	Bitumens, occupational exposure to oxidized bitumens and their emissions during roofing	2A	103	2013
008052-42-4	Bitumens, occupational exposure to straight-run bitumens	2B	103	2013
064741-56-6	and their emissions during road paving			
	BK polyomavirus (BKV)	2B	104	2014
011056-06-7	Bleomycins (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	26, Sup 7	1987
000129-17-9	Blue VRS	3	16, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Boot and shoe manufacture and repair (see Leather dust, Benzene)		25, Sup 7	1987
	Bracken fern	2B	40, Sup 7	1987
003844-45-9	Brilliant Blue FCF, disodium salt	3	16, Sup 7	1987
005589-96-8	Bromochloroacetic acid	2B	101	2013
083463-62-1	Bromochloroacetonitrile	3	52, 71	1999
000075-27-4	Bromodichloromethane	2B	52, 71	1999
000074-96-4	Bromoethane	3	52, 71	1999
000075-25-2	Bromoform	3	52, 71	1999
000106-94-5	1-Bromopropane	2B	115	2018
000055-98-1	Busulfan	1	4, Sup 7, 100A	2012
000106-99-0	1,3-Butadiene	1	Sup 7, 54, 71, 97, 100F	2012
000055-98-1	1,4-Butanediol dimethanesulfonate (see Busulfan)			
000111-76-2	2-Butoxyethanol	3	88	2006
057018-52-7	1- <i>tert</i> -Butoxypropan-2-ol	2B	88, 119	In prep.
000141-32-2	<i>n</i> -Butyl acrylate	3	39, Sup 7, 71	1999
025013-16-5	Butylated hydroxyanisole (BHA)	2B	40, Sup 7	1987
000128-37-0	Butylated hydroxytoluene (BHT)	3	40, Sup 7	1987
000085-68-7	Butyl benzyl phthalate	3	Sup 7, 73	1999
003068-88-0	beta-Butyrolactone	2B	11, Sup 7, 71	1999
000096-48-0	gamma-Butyrolactone	3	11, Sup 7, 71	1999
007440-43-9	Cadmium and cadmium compounds	1	58, 100C	2012
000331-39-5	Caffeic acid	2B	56	1993
000058-08-2	Caffeine	3	51	1991
	Calcium carbide production	3	92	2010
000056-25-7	Cantharidin	3	10, Sup 7	1987
000105-60-2	Caprolactam	4	39, Sup 7, 71	1999
002425-06-1	Captafol (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	53	1991
000133-06-2	Captan	3	30, Sup 7	1987
000063-25-2	Carbaryl	3	12, Sup 7	1987
000086-74-8	Carbazole	2B	32, Sup 7, 71, 103	2013
020073-24-9	3-Carbethoxypsoralen	3	40, Sup 7	1987
001333-86-4	Carbon black	2B	Sup 7, 65, 93	2010
	Carbon electrode manufacture	2A	92	2010

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
308068-56-6	Carbon nanotubes, multiwalled MWCNT-7	2B	111	2017
308068-56-6	Carbon nanotubes, multiwalled, other than MWCNT-7	3	111	2017
308068-56-6	Carbon nanotubes, single-walled	3	111	2017
000056-23-5	Carbon tetrachloride	2B	20, Sup 7, 71	1999
003567-69-9	Carmoisine	3	8, Sup 7	1987
	Carpentry and joinery	2B	25, Sup 7	1987
053973-98-1	Carrageenan, degraded (Poligeenan)	2B	31, Sup 7	1987
009000-07-1	Carrageenan, native	3	31, Sup 7	1987
000120-80-9	Catechol	2B	15, Sup 7, 71	1999
	Ceramic implants	3	74	1999
	Chimney sweeping (see Soot)		92	2010
000075-87-6	Chloral	2A	63, 84, 106	2014
000302-17-0	Chloral hydrate	2A	63, 84, 106	2014
000305-03-3	Chlorambucil	1	26, Sup 7, 100A	2012
010599-90-3	Chloramine	3	84	2004
000056-75-7	Chloramphenicol (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 50	1990
000057-74-9	Chlordane	2B	Sup 7, 53, 79	2001
000143-50-0	Chlordecone (Kepone)	2B	20, Sup 7	1987
006164-98-3	Chlordimeform	3	30, Sup 7	1987
000115-28-6	Chlorendic acid	2B	48	1990
	Chlorinated drinking-water	3	52	1991
	Chlorinated paraffins of average carbon chain length C12 and average degree of chlorination approximately 60%	2B	48	1990
000098-87-3 000098-07-7 000100-44-7 000098-88-4	alpha-Chlorinated toluenes (benzal chloride, benzotrichloride, benzyl chloride) and benzoyl chloride (combined exposures)	2A	29, Sup 7, 71	1999
000494-03-1	Chlornaphazine	1	4, Sup 7, 100A	2012
000107-14-2	Chloroacetonitrile	3	52, 71	1999
000106-47-8	<i>para</i> -Chloroaniline	2B	57	1993
000510-15-6	Chlorobenzilate	3	30, Sup 7	1987
000124-48-1	Chlorodibromomethane	3	52, 71	1999
077439-76-0	3-Chloro-4-(dichloromethyl)-5-hydroxy-2(5 <i>H</i> )-furanone	2B	84	2004
000075-45-6	Chlorodifluoromethane	3	41, Sup 7, 71	1999
000075-00-3	Chloroethane	3	52, 71	1999

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013010-47-4	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU) (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	26, Sup 7	1987
013909-09-6	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (see Methyl-CCNU)			
000593-70-4	Chlorofluoromethane	3	41, Sup 7, 71	1999
000067-66-3	Chloroform	2B	Sup 7, 73	1999
000107-30-2	Chloromethyl methyl ether (see Bis(chloromethyl)ether; chloromethyl methyl ether)			
000513-37-1	1-Chloro-2-methylpropene	2B	63	1995
000563-47-3	3-Chloro-2-methylpropene, technical grade	2B	63, 115	2018
	Chloronitrobenzenes (see 2-Chloronitrobenzene, 3-Chloronitrobenzene, 4-Chloronitrobenzene)			
000088-73-3	2-Chloronitrobenzene	2B	65, 123	In prep.
000121-73-3	3-Chloronitrobenzene	3	65	1996
000100-00-5	4-Chloronitrobenzene	2B	65, 123	In prep.
	Chlorophenols (see Polychlorophenols)			
	Chlorophenoxy herbicides	2B	41, Sup 7	1987
005131-60-2	4-Chloro- <i>meta</i> -phenylenediamine	3	27, Sup 7	1987
000095-83-0	4-Chloro- <i>ortho</i> -phenylenediamine	2B	27, Sup 7	1987
000126-99-8	Chloroprene	2B	Sup 7, 71	1999
000101-21-3	Chloroprotham	3	12, Sup 7	1987
000054-05-7	Chloroquine	3	13, Sup 7	1987
001897-45-6	Chlorothalonil	2B	Sup 7, 73	1999
000095-69-2	4-Chloro- <i>ortho</i> -toluidine	2A	77, 99	2010
000095-79-4	5-Chloro- <i>ortho</i> -toluidine	3	77, 99	2010
000075-88-7	2-Chloro-1,1,1-trifluoroethane	3	41, Sup 7, 71	1999
054749-90-5	Chlorozotocin (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	50	1990
000057-88-5	Cholesterol	3	31, Sup 7	1987
007440-47-3	Chromium, metallic	3	Sup 7, 49	1990
016065-83-1	Chromium (III) compounds	3	49	1990
018540-29-9	Chromium (VI) compounds	1	Sup 7, 49, 100C	2012
000218-01-9	Chrysene	2B	92	2010
000532-82-1	Chrysoidine	3	8, Sup 7	1987
006373-74-6	CI Acid Orange 3	3	57	1993



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000523-44-4	CI Acid Orange 20	3	8, Sup 7	1987
006459-94-5	CI Acid Red 114	2B	57	1993
000569-61-9	CI Basic Red 9	2B	57, 99	2010
001937-37-7	CI Direct Black 38 (see Benzidine, dyes metabolized to)			
002602-46-2	CI Direct Blue 6 (see Benzidine, dyes metabolized to)			
002429-74-5	CI Direct Blue 15	2B	57	1993
016071-86-6	CI Direct Brown 95 (see Benzidine, dyes metabolized to)			
001936-15-8	CI Orange G	3	8, Sup 7	1987
002425-85-6	CI Pigment Red 3	3	57	1993
059865-13-3	Ciclosporin	1	50, 100A	2012
051481-61-9	Cimetidine	3	50	1990
000087-29-6	Cinnamyl anthranilate	3	Sup 7, 77	2000
015663-27-1	Cisplatin (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	26, Sup 7	1987
000518-75-2	Citrinin	3	40, Sup 7	1987
006358-53-8	Citrus Red No. 2	2B	8, Sup 7	1987
000637-07-0	Clofibrate	3	Sup 7, 66	1996
000050-41-9	Clomiphene citrate	3	21, Sup 7	1987
	<i>Clonorchis sinensis</i> (infection with)	1	61, 100B	2012
	Coal, indoor emissions from household combustion of	1	95, 100E	2012
	Coal dust	3	68	1997
	Coal gasification	1	Sup 7, 92, 100F	2012
008007-45-2	Coal tars (see Coal-tar distillation)		35, Sup 7	1987
008007-45-2	Coal-tar distillation	1	92, 100F	2012
065996-93-2	Coal-tar pitch	1	35, Sup 7, 100F	2012
007440-48-4	Cobalt and cobalt compounds (NB: Evaluated as a group)	2B	52	1991
007440-48-4 012070-12-1	Cobalt metal with tungsten carbide	2A	86	2006
007440-48-4	Cobalt metal without tungsten carbide	2B	86	2006
010026-24-1	Cobalt sulfate and other soluble cobalt(II) salts	2B	86	2006
068603-42-9	Coconut oil diethanolamine condensate	2B	101	2013

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Coffee, drinking (NB: There is <i>evidence suggesting lack of carcinogenicity</i> in humans of coffee drinking for cancers of the pancreas, liver, female breast, uterine endometrium, and prostate. Inverse associations with coffee drinking have been observed with cancers of the liver and uterine endometrium.)	3	51, 116	2018 online
	Coke production	1	Sup 7, 92, 100F	2012
	Continuous glass filament (see Glass filament)			
010380-28-6	Copper 8-hydroxyquinoline	3	15, Sup 7	1987
000191-07-1	Coronene	3	32, Sup 7, 92	1987
000091-64-5	Coumarin	3	Sup 7, 77	2000
008001-58-9	Creosotes	2A	Sup 7, 92	2010
000102-50-1	<i>meta</i> -Cresidine	3	27, Sup 7	1987
000120-71-8	<i>para</i> -Cresidine	2B	27, Sup 7	1987
004170-30-3	Crotonaldehyde	3	63	1995
008002-05-9	Crude oil	3	45	1989
000098-82-8	Cumene	2B	101	2013
014901-08-7	Cycasin	2B	10, Sup 7	1987
000139-05-9	Cyclamates (sodium cyclamate)	3	Sup 7, 73	1999
012663-46-6	Cyclochlorotine	3	10, Sup 7	1987
000108-94-1	Cyclohexanone	3	47, 71	1999
000202-98-2	4 <i>H</i> -Cyclopenta[ <i>def</i> ]chrysene	3	92	2010
027208-37-3	Cyclopenta[ <i>cd</i> ]pyrene (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 92	2010
007099-43-6	5,6-Cyclopenteno-1,2-benzanthracene	3	92	2010
000050-18-0	Cyclophosphamide	1	26, Sup 7, 100A	2012
006055-19-2				
059865-13-3	Cyclosporine (see ciclosporin)			
079217-60-0				
000094-75-7	2,4-D (2,4-Dichlorophenoxyacetic acid (see also Chlorophenoxy herbicides)	2B	113	2018
004342-03-4	Dacarbazine	2B	26, Sup 7	1987
005160-02-1	D & C Red No. 9	3	Sup 7, 57	1993
000117-10-2	Dantron (Chrysazin; 1,8-Dihydroxyanthraquinone)	2B	50	1990
000080-08-0	Dapsone	3	24, Sup 7	1987
020830-81-3	Daunomycin	2B	10, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000050-29-3	DDT (4,4'-Dichlorodiphenyltrichloroethane)	2A	Sup 7, 53, 113	2018
001163-19-5	Decabromodiphenyl oxide	3	48, 71	1999
052918-63-5	Deltamethrin	3	53	1991
	Dental materials	3	74	1999
000083-63-6	Diacetylaminoazotoluene	3	8, Sup 7	1987
000613-35-4	<i>N,N'</i> -Diacetylbenzidine	2B	16, Sup 7	1987
002303-16-4	Diallate	3	30, Sup 7	1987
000615-05-4	2,4-Diaminoanisole	2B	Sup 7, 79	2001
000101-80-4	4,4'-Diaminodiphenyl ether	2B	29, Sup 7	1987
000099-56-9	1,2-Diamino-4-nitrobenzene	3	16, Sup 7	1987
005307-14-2	1,4-Diamino-2-nitrobenzene	3	Sup 7, 57	1993
000095-80-7	2,4-Diaminotoluene	2B	16, Sup 7	1987
000095-70-5	2,5-Diaminotoluene	3	16, Sup 7	1987
000439-14-5	Diazepam	3	Sup 7, 66	1996
333-41-5	Diazinon	2A	112	2017
000334-88-3	Diazomethane	3	7, Sup 7	1987
000226-36-8	Dibenz[ <i>a,h</i> ]acridine	2B	32, Sup 7, 103	2013
000224-42-0	Dibenz[ <i>a,j</i> ]acridine (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	32, Sup 7, 103	2013
000224-53-3	Dibenz[ <i>c,h</i> ]acridine (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	103	2013
000215-58-7	Dibenz[ <i>a,c</i> ]anthracene	3	Sup 7, 92	2010
000053-70-3	Dibenz[ <i>a,h</i> ]anthracene (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 92	2010
000224-41-9	Dibenz[ <i>a,j</i> ]anthracene	3	Sup 7, 92	2010
000194-59-2	7 <i>H</i> -Dibenzo[ <i>c,g</i> ]carbazole	2B	32, Sup 7, 103	2013
000262-12-4	Dibenzo- <i>para</i> -dioxin	3	69	1997
005385-75-1	Dibenzo[ <i>a,e</i> ]fluoranthene	3	Sup 7, 92	2010
000207-83-0	13 <i>H</i> -Dibenzo[ <i>a,g</i> ]fluorene	3	92	2010
000192-47-2	Dibenzo[ <i>h,rsf</i> ]pentaphene	3	Sup 7, 92	2010
000192-65-4	Dibenzo[ <i>a,e</i> ]pyrene	3	Sup 7, 92	2010
000189-64-0	Dibenzo[ <i>a,h</i> ]pyrene	2B	Sup 7, 92	2010
000189-55-9	Dibenzo[ <i>a,i</i> ]pyrene	2B	92	2010

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000191-30-0	Dibenzo[ <i>a,l</i> ]pyrene (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 92	2010
000192-51-8	Dibenzo[ <i>e,l</i> ]pyrene	3	92	2010
000132-65-0	Dibenzothiophene	3	103	2013
000631-64-1	Dibromoacetic acid	2B	101	2013
003252-43-5	Dibromoacetonitrile	2B	52, 71, 101	2013
000096-12-8	1,2-Dibromo-3-chloropropane	2B	20, Sup 7, 71	1999
000096-13-9	2,3-Dibromopropan-1-ol	2B	77	2000
000079-43-6	Dichloroacetic acid	2B	63, 84, 106	2014
003018-12-0	Dichloroacetonitrile	3	52, 71	1999
007572-29-4	Dichloroacetylene	3	39, Sup 7, 71	1999
000541-73-1	<i>meta</i> -Dichlorobenzene	3	73	1999
000095-50-1	<i>ortho</i> -Dichlorobenzene	3	Sup 7, 73	1999
000106-46-7	<i>para</i> -Dichlorobenzene	2B	Sup 7, 73	1999
000091-94-1	3,3'-Dichlorobenzidine	2B	29, Sup 7	1987
000110-57-6	<i>trans</i> -1,4-Dichlorobutene	3	15, Sup 7, 71	1999
028434-86-8	3,3'-Dichloro-4,4'-diaminodiphenyl ether	2B	16, Sup 7	1987
000107-06-2	1,2-Dichloroethane	2B	20, Sup 7, 71	1999
000075-09-2	Dichloromethane (Methylene chloride)	2A	Sup 7, 71, 110	2017
000094-75-7	2,4-Dichlorophenoxyacetic acid (see 2,4-D) (see also Chlorophenoxy herbicides)			
000089-61-2	1,4-Dichloro-2-nitrobenzene	2B	123	In prep.
000611-06-3	2,4-Dichloro-1-nitrobenzene	2B	123	In prep.
000609-20-1	2,6-Dichloro- <i>para</i> -phenylenediamine	3	39, Sup 7	1987
000078-87-5	1,2-Dichloropropane	1	41, Sup 7, 71, 110	2017
000096-23-1	1,3-Dichloro-2-propanol	2B	101	2013
000542-75-6	1,3-Dichloropropene (technical-grade)	2B	41, Sup 7, 71	1999
000062-73-7	Dichlorvos	2B	Sup 7, 53	1991
000115-32-2	Dicofol	3	30, Sup 7	1987
069655-05-6	Didanosine	3	76	2000
000060-57-1	Dieldrin (see Dieldrin, and aldrin metabolized to dieldrin)			
000060-57-1	Dieldrin, and aldrin metabolized to dieldrin	2A	5, Sup 7, 117	In prep.
000309-00-2				

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
001464-53-5	1,2:3,4-Diepoxybutane (see <i>Monographs</i> on 1,3-Butadiene)		11, Sup 7	1987
	Diesel engine exhaust (see Engine exhaust, diesel)			
	Diesel fuels, distillate (light)	3	45	1989
	Diesel fuel, marine (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	45	1989
000111-42-2	Diethanolamine	2B	77, 101	2013
000103-23-1	Di(2-ethylhexyl) adipate	3	Sup 7, 77	2000
000117-81-7	Di(2-ethylhexyl)phthalate	2B	Sup 7, 77, 101	2013
001615-80-1	1,2-Diethylhydrazine	2B	4, Sup 7, 71	1999
000056-53-1	Diethylstilbestrol	1	21, Sup 7, 100A	2012
000064-67-5	Diethyl sulfate (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	54, 71	1999
000105-55-5	<i>N,N</i> -Diethylthiourea	3	79	2001
000101-90-6	Diglycidyl resorcinol ether	2B	36, Sup 7, 71	1999
020830-75-5	Digoxin	2B	108	2016
000641-48-5	Dihydroaceanthrylene	3	92	2010
000094-58-6	Dihydrosafrole	2B	10, Sup 7	1987
000794-93-4	Dihydroxymethylfuratrizine (see also Panfuran S)	3	24, Sup 7	1987
002973-10-6	Diisopropyl sulfate	2B	54, 71	1999
000828-00-2	Dimethoxane	3	15, Sup 7	1987
000119-90-4	3,3'-Dimethoxybenzidine ( <i>ortho</i> -Dianisidine)	2B	4, Sup 7	1987
000091-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate	3	39, Sup 7	1987
000127-19-5	<i>N,N</i> -Dimethylacetamide	2B	123	In prep.
000060-11-7	<i>para</i> -Dimethylaminoazobenzene	2B	8, Sup 7	1987
000140-56-7	<i>para</i> -Dimethylaminoazobenzene diazo sodium sulfonate	3	8, Sup 7	1987
025962-77-0	<i>trans</i> -2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)-vinyl]-1,3,4-oxadiazole	2B	7, Sup 7	1987
022975-76-4	4,4'-Dimethylangelicin plus ultraviolet A radiation	3	Sup 7	1987
004063-41-6	4,5'-Dimethylangelicin plus ultraviolet A radiation	3	Sup 7	1987
000087-62-7	2,6-Dimethylaniline (2,6-Xylidine)	2B	57	1993
000121-69-7	<i>N,N</i> -Dimethylaniline	3	57	1993
000075-60-5	Dimethylarsinic acid	2B	100C	2012
000119-93-7	3,3'-Dimethylbenzidine ( <i>ortho</i> -Tolidine)	2B	1, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000079-44-7	Dimethylcarbamoyl chloride (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	12, Sup 7, 71	1999
000068-12-2	<i>N,N</i> -Dimethylformamide	2A	47, 71, 115	2018
000057-14-7	1,1-Dimethylhydrazine	2B	4, Sup 7, 71	1999
000540-73-8	1,2-Dimethylhydrazine (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	4, Sup 7, 71	1999
000868-85-9	Dimethyl hydrogen phosphite	3	48, 71	1999
022349-59-3	1,4-Dimethylphenanthrene	3	Sup 7, 92	2010
000077-78-1	Dimethyl sulfate (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	4, Sup 7, 71	1999
000099-97-8	<i>N,N</i> -Dimethyl- <i>p</i> -toluidine	2B	115	2018
105735-71-5	3,7-Dinitrofluoranthene	2B	46, 65, 105	2014
022506-53-2	3,9-Dinitrofluoranthene	2B	46, 65, 105	2014
075321-20-9	1,3-Dinitropyrene	2B	46, 105	2014
042397-64-8	1,6-Dinitropyrene	2B	46, 105	2014
042397-65-9	1,8-Dinitropyrene	2B	Sup 7, 46, 105	2014
000101-25-7	Dinitrosopentamethylenetetramine	3	11, Sup 7	1987
000121-14-2	2,4-Dinitrotoluene	2B	65	1996
000606-20-2	2,6-Dinitrotoluene	2B	65	1996
000618-85-9	3,5-Dinitrotoluene	3	65	1996
000123-91-1	1,4-Dioxane	2B	11, Sup 7, 71	1999
000492-17-1	2,4'-Diphenyldiamine	3	16, Sup 7	1987
002475-45-8	Disperse Blue 1	2B	48	1990
002832-40-8	Disperse Yellow 3	3	48	1990
000097-77-8	Disulfiram	3	12, Sup 7	1987
001143-38-0	Dithranol	3	13; Sup 7	1987
040762-15-0	Doxefazepam	3	66	1996
000562-10-7	Doxylamine succinate	3	79	2001
082413-20-5	Droloxifene	3	66	1996
	Dry cleaning (occupational exposures in)	2B	63	1995
000150-69-6	Dulcin	3	12, Sup 7	1987
	Dyes metabolized to benzidine (see Benzidine, dyes metabolized to)			
	Electric fields, extremely low-frequency	3	80	2002
	Electric fields, static	3	80	2002
000072-20-8	Endrin	3	5, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Engine exhaust, diesel	1	46, 105	2014
	Engine exhaust, gasoline	2B	46, 105	2014
015086-94-9	Eosin	3	15, Sup 7	1987
000106-89-8	Epichlorohydrin (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	11, Sup 7, 71	1999
000106-88-7	1,2-Epoxybutane (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	47, 71	1999
000141-37-7	3,4-Epoxy-6-methylcyclohexylmethyl-3,4-epoxy-6-methylcyclo-hexanecarboxylate	3	11, Sup 7, 71	1999
024560-98-3	<i>cis</i> -9,10-Epoxy stearic acid	3	11, Sup 7, 71	1999
	Epstein-Barr virus	1	70, 100B	2012
066733-21-9	Erionite	1	42, Sup 7, 100C	2012
029975-16-4	Estazolam	3	66	1996
	Estrogen therapy, postmenopausal (see Estrogen-only menopausal therapy)			
	Estrogen-only menopausal therapy	1	72, 100A	2012
	Estrogen-progestogen menopausal therapy (combined)	1	72, 91, 100A	2012
	Estrogen-progestogen oral contraceptives (combined) (NB: There is also convincing evidence in humans that these agents confer a protective effect against cancer in the endometrium and ovary)	1	72, 91, 100A	2012
000064-17-5	Ethanol in alcoholic beverages	1	96, 100E	2012
000536-33-4	Ethionamide	3	13, Sup 7	1987
000140-88-5	Ethyl acrylate	2B	39, Sup 7, 71, 122	In prep.
000100-41-4	Ethylbenzene	2B	77	2000
000051-79-6	Ethyl carbamate (Urethane)	2A	7, Sup 7, 96	2010
000074-85-1	Ethylene	3	Sup 7, 60	1994
000106-93-4	Ethylene dibromide (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	15, Sup 7, 71	1999
000075-21-8	Ethylene oxide (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	Sup 7, 60, 97, 100F	2012
000420-12-2	Ethylene sulfide	3	11, Sup 7	1987
000096-45-7	Ethylenethiourea (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	Sup 7, 79	2001

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000103-11-7	2-Ethylhexyl acrylate	2B	60, 122	In prep.
000062-50-0	Ethyl methanesulfonate	2B	7, Sup 7	1987
000759-73-9	<i>N</i> -Ethyl- <i>N</i> -nitrosourea (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	17, Sup 7	1987
005456-28-0	Ethyl selenac	3	12, Sup 7	1987
020941-65-5	Ethyl tellurac	3	12, Sup 7	1987
033419-42-0	Etoposide (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	76, 100A	2012
033419-42-0	Etoposide in combination with cisplatin and bleomycin	1	76, 100A	2012
015663-27-1				
011056-06-7				
000097-53-0	Eugenol	3	36, Sup 7	1987
000314-13-6	Evans blue	3	8, Sup 7	1987
002353-45-9	Fast Green FCF	3	16, Sup 7	1987
051630-58-1	Fenvalerate	3	53	1991
014484-64-1	Ferbam	3	12, Sup 7	1987
001309-37-1	Ferric oxide	3	1, Sup 7	1987
	Firefighter (occupational exposure as a)	2B	98	2010
	Fission products, including strontium-90	1	100D	2012
	Flat-glass and specialty glass (manufacture of)	3	58	1993
002164-17-2	Fluometuron	3	30, Sup 7	1987
000206-44-0	Fluoranthene	3	Sup 7, 92	2010
000086-73-7	Fluorene	3	Sup 7, 92	2010
	Fluorescent lighting	3	55	1992
016984-48-8	Fluorides (inorganic, used in drinking-water)	3	27, Sup 7	1987
	Fluoro-edenite fibrous amphibole	1	111	2017
000051-21-8	5-Fluorouracil	3	26, Sup 7	1987
	Foreign bodies (see Ceramic implants, Dental materials, Implanted foreign bodies, Metallic implants, Organic polymeric materials, Orthopaedic implants, Polymeric implants, Silicone breast implants)			
000050-00-0	Formaldehyde	1	Sup 7, 62, 88, 100F	2012
003570-75-0	2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	2B	7, Sup 7	1987
	Frying, emissions from high-temperature	2A	95	2010
	Fuel oils, distillate (light)	3	45	1989
	Fuel oils, residual (heavy)	2B	45	1989



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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
116355-83-0	Fumonisin B <sub>1</sub>	2B	82	2002
000110-00-9	Furan	2B	63	1995
000067-45-8	Furazolidone	3	31, Sup 7	1987
000098-00-0	Furfuryl alcohol	2B	119	In prep.
000098-01-1	Furfural	3	63	1995
	Furniture and cabinet making (see Wood dust)		25, Sup 7	1987
000054-31-9	Furosemide (Frusemide)	3	50	1990
	<i>Fusarium graminearum</i> , <i>F. culmorum</i> , and <i>F. crookwellense</i> , toxins derived from (zearalenone, deoxynivalenol, nivalenol, and fusarenone X)	3	Sup 7, 56	1993
116355-83-0	<i>Fusarium moniliforme</i> , toxins derived from (fumonisin B <sub>1</sub> , fumonisin B <sub>2</sub> , and fusarin C)	2B	56	1993
	<i>Fusarium sporotrichioides</i> , toxins derived from (T-2 toxin)	3	56	1993
001303-00-0	Gallium arsenide (see Arsenic and inorganic arsenic compounds)		86, 100C	2012
	Gamma-Radiation (see X- and Gamma-Radiation)			
	Gasoline (NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)	2B	45	1989
	Gasoline engine exhaust (see Engine exhaust, gasoline)			
025812-30-0	Gemfibrozil	3	66	1996
090045-36-6	<i>Ginkgo biloba</i> extract	2B	108	2016
	Glass filament, continuous	3	43, 81	2002
067730-11-4	Glu-P-1 (2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole)	2B	40, Sup 7	1987
067730-10-3	Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]imidazole)	2B	40, Sup 7	1987
000765-34-4	Glycidaldehyde	2B	11, Sup 7, 71	1999
000556-52-5	Glycidol (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	77	2000
005431-33-4	Glycidyl oleate	3	11, Sup 7	1987
007460-84-6	Glycidyl stearate	3	11, Sup 7	1987
001071-83-6	Glyphosate	2A	112	2017
	Goldenseal root powder	2B	108	2016
000126-07-8	Griseofulvin	2B	Sup 7, 79	2001
004680-78-8	Guinea Green B	3	16, Sup 7	1987
016568-02-8	Gyromitrin	3	31, Sup 7	1987
001317-60-8	Haematite	3	1, Sup 7	1987
	Haematite mining (underground)	1	1, Sup 7, 100D	2012

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Hair colouring products (personal use of)	3	57, 99	2010
	Hairdresser or barber (occupational exposure as a)	2A	57, 99	2010
002784-94-3	HC Blue No. 1	2B	57	1993
033229-34-4	HC Blue No. 2	3	57	1993
002871-01-4	HC Red No. 3	3	57	1993
059820-43-8	HC Yellow No. 4	3	57	1993
	<i>Helicobacter pylori</i> (infection with)	1	61, 100B	2012
	Hepatitis B virus (chronic infection with)	1	59, 100B	2012
	Hepatitis C virus (chronic infection with)	1	59, 100B	2012
	Hepatitis D virus	3	59	1994
000076-44-8	Heptachlor	2B	Sup 7, 53, 79	2001
000118-74-1	Hexachlorobenzene	2B	Sup 7, 79	2001
000087-68-3	Hexachlorobutadiene	3	73	1999
	Hexachlorocyclohexanes (see also Lindane)	2B	20, Sup 7	1987
000067-72-1	Hexachloroethane	2B	73	1999
000070-30-4	Hexachlorophene	3	20, Sup 7	1987
000142-83-6	2,4-Hexadienal	2B	101	2013
000680-31-9	Hexamethylphosphoramide	2B	15, Sup 7, 71	1999
	High-temperature frying (see Frying)			
	Hot mate (see Very hot beverages)			
	Household combustion of biomass fuel (see Biomass fuel, indoor emissions from household combustion of)			
	Household combustion of coal (see Coal, indoor emissions from household combustion)			
	Human herpesvirus type 4 (see Epstein-Barr virus)			
	Human herpesvirus type 8 (see Kaposi sarcoma herpesvirus)			
	Human immunodeficiency virus type 1 (infection with)	1	67, 100B	2012
	Human immunodeficiency virus type 2 (infection with)	2B	67	1996
	Human papillomavirus genus beta (except types 5 and 8) and genus gamma	3	90, 100B	2012
	Human papillomavirus types 5 and 8 (in patients with epidermodysplasia verruciformis)	2B	100B	2012
	Human papillomavirus types 6 and 11	3	90, 100B	2012
	Human papillomavirus types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 (NB: The HPV types that have been classified as <i>carcinogenic to humans</i> can differ by an order of magnitude in risk for cervical cancer)	1	64, 90, 100B	2012
	Human papillomavirus types 26, 53, 66, 67, 70, 73, 82	2B	100B	2012

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Human papillomavirus types 30, 34, 69, 85, 97 (NB: Classified by phylogenetic analogy to the HPV genus alpha types classified in Group 1)	2B	100B	2012
	Human papillomavirus type 68	2A	100B	2012
	Human T-cell lymphotropic virus type I	1	67, 100B	2012
	Human T-cell lymphotropic virus type II	3	67	1996
023255-93-8	Hycanthone mesylate	3	13, Sup 7	1987
000086-54-4	Hydralazine	3	24, Sup 7	1987
000302-01-2	Hydrazine	2A	4, Sup 7, 71, 115	2018
007647-01-0	Hydrochloric acid	3	54	1992
000058-93-5	Hydrochlorothiazide	2B	50, 108	2016
007722-84-1	Hydrogen peroxide	3	36, Sup 7, 71	1999
000123-31-9	Hydroquinone	3	15, Sup 7, 71	1999
000129-43-1	1-Hydroxyanthraquinone	2B	82	2002
001689-82-3	4-Hydroxyazobenzene	3	8, Sup 7	1987
000148-24-3	8-Hydroxyquinoline	3	13, Sup 7	1987
026782-43-4	Hydroxysenkirkine	3	10, Sup 7	1987
000127-07-1	Hydroxyurea	3	76	2000
	Hypochlorite salts	3	52	1991
	Implanted foreign bodies of metallic chromium or titanium and of cobalt-based, chromium-based, and titanium- based alloys, stainless steel, and depleted uranium	3	74	1999
	Implanted foreign bodies of metallic cobalt, metallic nickel, and an alloy powder containing 66–67% nickel, 13–16% chromium, and 7% iron	2B	74	1999
000193-39-5	Indeno[1,2,3- <i>cd</i> ]pyrene	2B	Sup 7, 92	2010
022398-80-7	Indium phosphide (NB: Overall evaluation upgraded to Group 2A)	2A	86	2006
	Insulation glass wool	3	43, 81	2002
	Involuntary smoking (see Tobacco smoke, second-hand)			
050926-11-9	Indium tin oxide	2B	118	2018 online
010043-66-0	Iodine-131 (see Radioiodines)			
	Ionizing radiation (all types)	1	100D	2012
076180-96-6	IQ (2-Amino-3-methylimidazo[4,5- <i>f</i> ]quinoline) (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 56	1993
	Iron and steel founding (occupational exposure during)	1	34, Sup 7, 100F	2012
009004-66-4	Iron-dextran complex	2B	2, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
009004-51-7	Iron-dextrin complex	3	2, Sup 7	1987
001338-16-5	Iron sorbitol-citric acid complex	3	2, Sup 7	1987
015503-86-3	Isatidine	3	10, Sup 7	1987
000542-56-3	Isobutyl nitrite	2B	122	In prep.
000054-85-3	Isonicotinic acid hydrazide (Isoniazid)	3	4, Sup 7	1987
003778-73-2	Isophosphamide	3	26, Sup 7	1987
000078-79-5	Isoprene	2B	60, 71	1999
000067-63-0	Isopropyl alcohol	3	15, Sup 7, 71	1999
	Isopropyl alcohol manufacture using strong acids	1	Sup 7, 100F	2012
	Isopropyl oils	3	15, Sup 7, 71	1999
000120-58-1	Isosafrole	3	10, Sup 7	1987
006870-67-3	Jacobine	3	10, Sup 7	1987
	JC polyomavirus (JCV)	2B	104	2014
	Jet fuel	3	45	1989
000520-18-3	Kaempferol	3	31, Sup 7	1987
	Kaposi sarcoma herpesvirus	1	70, 100B	2012
009000-38-8	Kava extract	2B	108	2016
000501-30-4	Kojic acid	3	79	2001
000303-34-4	Lasiocarpine	2B	10, Sup 7	1987
000105-74-8	Lauroyl peroxide	3	36, Sup 7, 71	1999
007439-92-1	Lead	2B	23, Sup 7	1987
	Lead compounds, inorganic	2A	Sup 7, 87	2006
	Lead compounds, organic (NB: Organic lead compounds are metabolized at least in part, to ionic lead both in humans and animals. To the extent that ionic lead, generated from organic lead, is present in the body, it will be expected to exert the toxicities associated with inorganic lead.)	3	23, Sup 7, 87	2006
	Leather dust	1	100C	2012
	Leather goods manufacture	3	25, Sup 7	1987
	Leather tanning and processing	3	25, Sup 7	1987
005141-20-8	Light Green SF	3	16, Sup 7	1987
005989-27-5	<i>d</i> -Limonene (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	56, 73	1999
58-89-9	Lindane (see also Hexachlorocyclohexanes)	1	113	2018
	Lumber and sawmill industries (including logging)	3	25, Sup 7	1987
021884-44-6	Luteoskyrin	3	10, Sup 7	1987
	Madder root ( <i>Rubia tinctorum</i> )	3	82	2002

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000632-99-5	Magenta	2B	Sup 7, 57, 99, 100F	2012
	Magenta production	1	Sup 7, 57, 99, 100F	2012
	Magnetic fields, extremely low-frequency	2B	80	2002
	Magnetic fields, static	3	80	2002
	Malaria (caused by infection with <i>Plasmodium falciparum</i> in holoendemic areas)	2A	104	2014
000121-75-5	Malathion	2A	30, Sup 7, 112	2017
000123-33-1	Maleic hydrazide	3	4, Sup 7	1987
000542-78-9	Malonaldehyde	3	36, Sup 7, 71	1999
012427-38-2	Maneb	3	12, Sup 7	1987
000551-74-6	Mannomustine dihydrochloride	3	9, Sup 7	1987
	Mate, not very hot (drinking)	3	51, 116	2018 online
	Mate, hot (drinking) (see Very hot beverages)			
068006-83-7	MeA-alpha-C (2-Amino-3-methyl-9H-pyrido[2,3-b]indole)	2B	40, Sup 7	1987
013045-94-8	Medphalan	3	9, Sup 7	1987
000071-58-9	Medroxyprogesterone acetate	2B	21, Sup 7	1987
077094-11-2	MelQ (2-Amino-3,4-dimethylimidazo[4,5-f]quinoline)	2B	Sup 7, 56	1993
077500-04-0	MelQx (2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline)	2B	Sup 7, 56	1993
000108-78-1	Melamine	2B	Sup 7, 73, 119	In prep.
000148-82-3	Melphalan	1	9, Sup 7, 100A	2012
000149-30-4	2-Mercaptobenzothiazole	2A	115	2018
000050-44-2	6-Mercaptopurine	3	26, Sup 7	1987
007439-97-6	Mercury and inorganic mercury compounds	3	58	1993
	Merkel cell polyomavirus (MCV)	2A	104	2014
000531-76-0	Merphalan	2B	9, Sup 7	1987
	Metabisulfites	3	54	1992
	Metallic implants prepared as thin smooth films	2B	74	1999
000060-56-0	Methimazole	3	79	2001
000059-05-2	Methotrexate	3	26, Sup 7	1987
000072-43-5	Methoxychlor	3	20, Sup 7	1987
000298-81-7	Methoxsalen (8-methoxypsoralen) plus ultraviolet A radiation	1	24, Sup 7, 100A	2012

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000484-20-8	5-Methoxypsoralen (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	40, Sup 7	1987
000096-33-3	Methyl acrylate	2B	39, Sup 7, 71, 122	In prep.
073459-03-7	5-Methylangelicin plus ultraviolet A radiation	3	Sup 7	1987
000124-58-3	Methylarsonic acid	2B	100C	2012
000075-55-8	2-Methylaziridine (Propyleneimine)	2B	9, Sup 7, 71	1999
000592-62-1	Methylazoxymethanol acetate	2B	10, Sup 7	1987
000074-83-9	Methyl bromide	3	41, Sup 7, 71	1999
001634-04-4	Methyl <i>tert</i> -butyl ether	3	73	1999
000598-55-0	Methyl carbamate	3	12, Sup 7	1987
013909-09-6	Methyl-CCNU	1	Sup 7, 100A	2012
000074-87-3	Methyl chloride	3	41, Sup 7, 71	1999
003351-28-8	1-Methylchrysene	3	Sup 7, 92	2010
003351-32-4	2-Methylchrysene	3	Sup 7, 92	2010
003351-31-3	3-Methylchrysene	3	Sup 7, 92	2010
003351-30-2	4-Methylchrysene	3	Sup 7, 92	2010
003697-24-3	5-Methylchrysene	2B	Sup 7, 92	2010
001705-85-7	6-Methylchrysene	3	Sup 7, 92	2010
000099-80-9	<i>N</i> -Methyl- <i>N</i> ,4-dinitrosoaniline	3	1, Sup 7	1987
000101-14-4	4,4'-Methylenebis(2-chloroaniline) (MOCA) (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	Sup 7, 57, 99, 100F	2012
000838-88-0	4,4'-Methylene bis(2-methylaniline)	2B	4, Sup 7	1987
007220-79-3	Methylene blue	3	108	2016
000101-77-9	4,4'-Methylenedianiline	2B	39, Sup 7	1987
000101-68-8	4,4'-Methylenediphenyl diisocyanate	3	19, Sup 7, 71	1999
000093-15-2	Methyleugenol	2B	101	2013
033543-31-6	2-Methylfluoranthene	3	Sup 7, 92	2010
001706-01-0	3-Methylfluoranthene	3	Sup 7, 92	2010
000078-98-8	Methylglyoxal	3	51	1991
000693-98-1	2-Methylimidazole	2B	101	2013
000822-36-6	4-Methylimidazole	2B	101	2013
000074-88-4	Methyl iodide	3	41, Sup 7, 71	1999
000108-10-1	Methyl isobutyl ketone	2B	101	2013
	Methylmercury compounds (NB: Evaluated as a group)	2B	58	1993
000080-62-6	Methyl methacrylate	3	Sup 7, 60	1994

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000066-27-3	Methyl methanesulfonate (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	7, Sup 7, 71	1999
000129-15-7	2-Methyl-1-nitroanthraquinone (uncertain purity)	2B	27, Sup 7	1987
000070-25-7	<i>N</i> -Methyl- <i>N'</i> -nitro- <i>N</i> -nitrosoguanidine (MNNG) (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	4, Sup 7	1987
000684-93-5	<i>N</i> -Methyl- <i>N</i> -nitrosourea (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	17, Sup 7	1987
000615-53-2	<i>N</i> -Methyl- <i>N</i> -nitrosourethane	2B	4, Sup 7	1987
090456-67-0	<i>N</i> -Methylolacrylamide	3	60	1994
000298-00-0	Methyl parathion	3	30, Sup 7	1987
000832-69-9	1-Methylphenanthrene	3	Sup 7, 92	2010
085878-63-3	7-Methylpyrido[3,4- <i>c</i> ]psoralen	3	40, Sup 7	1987
000493-52-7	Methyl red	3	8, Sup 7	1987
000144-34-3	Methyl selenac	3	12, Sup 7	1987
000098-83-9	$\alpha$ -Methylstyrene	2B	101	2013
000056-04-2	Methylthiouracil	2B	Sup 7, 79	2001
000443-48-1	Metronidazole	2B	13, Sup 7	1987
000101-61-1	Michler's base [4,4'-methylenebis( <i>N,N</i> -dimethyl)-benzenamine]	2B	27, Sup 7, 99	2010
000090-94-8	Michler's ketone [4,4'-Bis(dimethylamino)benzophenone]	2B	99	2010
101043-37-2	Microcystin-LR	2B	94	2010
	<i>Microcystis</i> extracts	3	94	2010
	Mineral oils, highly-refined	3	33, Sup 7	1987
	Mineral oils, untreated or mildly treated	1	33, Sup 7, 100F	2012
002385-85-5	Mirex	2B	20, Sup 7	1987
000050-07-7	Mitomycin C	2B	10, Sup 7	1987
065271-80-9	Mitoxantrone	2B	76	2000
	Modacrylic fibres	3	19, Sup 7	1987
001313-27-5	Molybdenum trioxide	2B	118	2018 online
000096-24-2	3-Monochloro-1,2-propanediol	2B	101	2013
000315-22-0	Monocrotaline	2B	10, Sup 7	1987
000124-58-3	Monomethylarsonic acid (see Methylarsonic acid)	2B	100C	2012
000150-68-5	Monuron	3	Sup 7, 53	1991
	MOPP and other combined chemotherapy including alkylating agents	1	Sup 7, 100A	2012

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000110-91-8	Morpholine	3	47, 71	1999
003795-88-8	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone	2B	7, Sup 7	1987
308068-56-6	Multiwalled carbon nanotubes MWCNT-7 (see Carbon nanotubes, multiwalled MWCNT-7)			
308068-56-6	Multiwalled carbon nanotubes other than MWCNT-7 (see Carbon nanotubes, multiwalled, other than MWCNT-7)			
000123-35-3	β-Myrcene	2B	119	In prep.
000083-66-9	Musk ambrette	3	65	1996
000081-15-2	Musk xylene	3	65	1996
000505-60-2	Mustard gas (see Sulfur mustard)			
000055-98-1	Myleran (see Busulfan)			
003771-19-5	Nafenopin	2B	24, Sup 7	1987
000091-20-3	Naphthalene	2B	82	2002
002243-62-1	1,5-Naphthalenediamine	3	27, Sup 7	1987
003173-72-6	1,5-Naphthalene diisocyanate	3	19, Sup 7, 71	1999
111189-32-3	Naphtho[1,2- <i>b</i> ]fluoranthene	3	92	2010
000203-20-3	Naphtho[2,1- <i>a</i> ]fluoranthene	3	92	2010
000193-09-9	Naphtho[2,3- <i>e</i> ]pyrene	3	92	2010
000134-32-7	1-Naphthylamine	3	4, Sup 7	1987
000091-59-8	2-Naphthylamine	1	4, Sup 7, 99, 100F	2012
000086-88-4	1-Naphthylthiourea (ANTU)	3	30, Sup 7	1987
000139-94-6	Nithiazide	3	31, Sup 7	1987
	Neutron radiation (NB: Overall evaluation upgraded to Group 1 with supporting evidence from other relevant data)	1	75, 100D	2012
007440-02-0	Nickel, metallic and alloys	2B	Sup 7, 49	1990
	Nickel compounds	1	Sup 7, 49, 100C	2012
	Nickel refining (see Nickel compounds)		11	1976
000061-57-4	Niridazole	2B	13, Sup 7	1987
	Nitrate or nitrite (ingested) under conditions that result in endogenous nitrosation	2A	94	2010
000139-13-9	Nitrilotriacetic acid and its salts (NB: Evaluated as a group)	2B	48, 73	1999
000602-87-9	5-Nitroacenaphthene	2B	16, Sup 7	1987
000099-59-2	5-Nitro- <i>ortho</i> -anisidine	3	27, Sup 7	1987
000091-23-6	2-Nitroanisole	2B	65	1996



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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000100-17-4	<i>para</i> -Nitroanisole	2B	123	In prep.
000602-60-8	9-Nitroanthracene	3	33, Sup 7	1987
017117-34-9	3-Nitrobenzanthrone	2B	105	2014
	(NB: Overall evaluation upgraded to Group 2B with supporting evidence from other relevant data)			
000098-95-3	Nitrobenzene	2B	65	1996
020268-51-3	7-Nitrobenz[ <i>a</i> ]anthracene	3	46	1989
063041-90-7	6-Nitrobenzo[ <i>a</i> ]pyrene	3	Sup 7, 46	1989
000092-93-3	4-Nitrobiphenyl	3	4, Sup 7	1987
007496-02-8	6-Nitrochrysene	2A	Sup 7, 46, 105	2014
001836-75-5	Nitrofen (technical-grade)	2B	30, Sup 7	1987
000892-21-7	3-Nitrofluoranthene	3	33, Sup 7	1987
000607-57-8	2-Nitrofluorene	2B	46, 105	2014
000059-87-0	Nitrofural (Nitrofurazone)	3	50	1990
000067-20-9	Nitrofurantoin	3	50	1990
000555-84-0	1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone	2B	7, Sup 7	1987
000531-82-8	<i>N</i> -[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	2B	7, Sup 7	1987
000051-75-2	Nitrogen mustard	2A	9, Sup 7	1987
000126-85-2	Nitrogen mustard <i>N</i> -oxide	2B	9, Sup 7	1987
000075-52-5	Nitromethane	2B	77	2000
000086-57-7	1-Nitronaphthalene	3	46	1989
000581-89-5	2-Nitronaphthalene	3	46	1989
020589-63-3	3-Nitroperylene	3	46	1989
000079-46-9	2-Nitropropane	2B	29, Sup 7, 71	1999
005522-43-0	1-Nitropyrene	2A	Sup 7, 46, 105	2014
000789-07-1	2-Nitropyrene	3	46	1989
057835-92-4	4-Nitropyrene	2B	46, 105	2014
037620-20-5	<i>N</i> -Nitrosoanabasine (NAB)	3	37, Sup 7, 89	2007
071267-22-6	<i>N</i> -Nitrosoanatabine (NAT)	3	37, Sup 7, 89	2007
000924-16-3	<i>N</i> -Nitrosodi- <i>n</i> -butylamine	2B	17, Sup 7	1987
001116-54-7	<i>N</i> -Nitrosodiethanolamine	2B	17, Sup 7, 77	2000
000055-18-5	<i>N</i> -Nitrosodiethylamine	2A	17, Sup 7	1987
	(NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)			
000062-75-9	<i>N</i> -Nitrosodimethylamine	2A	17, Sup 7	1987
	(NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)			

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000086-30-6	<i>N</i> -Nitrosodiphenylamine	3	27, Sup 7	1987
000156-10-5	<i>para</i> -Nitrosodiphenylamine	3	27, Sup 7	1987
000621-64-7	<i>N</i> -Nitrosodi- <i>n</i> -propylamine	2B	17, Sup 7	1987
029291-35-8	<i>N</i> -Nitrosofolic acid	3	17, Sup 7	1987
055557-01-2	<i>N</i> -Nitrosoguvacine	3	Sup 7, 85	2004
055557-02-3	<i>N</i> -Nitrosoguvacoline	3	Sup 7, 85	2004
030310-80-6	<i>N</i> -Nitrosohydroxyproline	3	17, Sup 7	1987
085502-23-4	3-( <i>N</i> -Nitrosomethylamino)propionaldehyde	3	Sup 7, 85	2004
060153-49-3	3-( <i>N</i> -Nitrosomethylamino)propionitrile	2B	Sup 7, 85	2004
010595-95-6	<i>N</i> -Nitrosomethylethylamine	2B	17, Sup 7	1987
004549-40-0	<i>N</i> -Nitrosomethylvinylamine	2B	17, Sup 7	1987
000059-89-2	<i>N</i> -Nitrosomorpholine	2B	17, Sup 7	1987
016543-55-8 064091-91-4	<i>N</i> '-Nitrosornicotine (NNN) and 4-( <i>N</i> -Nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK) (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	Sup 7, 89, 100E	2012
000100-75-4	<i>N</i> -Nitrosopiperidine	2B	17, Sup 7	1987
007519-36-0	<i>N</i> -Nitrosoproline	3	17, Sup 7	1987
000930-55-2	<i>N</i> -Nitrosopyrrolidine	2B	17, Sup 7	1987
013256-22-9	<i>N</i> -Nitrososarcosine	2B	17, Sup 7	1987
000088-72-2	2-Nitrotoluene (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	101	2013
000099-08-1 000099-99-0	Nitrotoluenes	3	65	1996
000099-55-8	5-Nitro- <i>ortho</i> -toluidine	3	48	1990
000804-36-4	Nitrovin	3	31, Sup 7	1987
118399-22-7	Nodularins	3	94	2010
	Non-arsenical insecticides (occupational exposures in spraying and application of)	2A	53	1991
025038-54-4	Nylon 6	3	19, Sup 7	1987
000303-47-9	Ochratoxin A	2B	Sup 7, 56	1993
022966-79-6	Oestradiol mustard	3	9, Sup 7	1987
	Oestrogen (see Estrogen)			
002646-17-5	Oil Orange SS	2B	8, Sup 7	1987
	<i>Opisthorchis felineus</i> (infection with)	3	61	1994
	<i>Opisthorchis viverrini</i> (infection with)	1	61, 100B	2012
	Oral contraceptives, combined estrogen-progestogen (see Estrogen-progestogen oral contraceptives)			
000523-44-4	Orange I (see CI Acid Orange 20)			

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
001936-15-8	Orange G (see CI Orange G)			
	Organic polymeric materials	3	74	1999
	Orthopaedic implants of complex composition and cardiac pacemakers	3	74	1999
	Outdoor air pollution	1	109	2016
	Outdoor air pollution, particulate matter in	1	109	2016
000604-75-1	Oxazepam	2B	Sup 7, 66	1996
000129-20-4	Oxyphenbutazone	3	13, Sup 7	1987
	Painter (occupational exposure as a)	1	47, 98, 100F	2012
	Paint manufacture (occupational exposure in)	3	47	1989
012174-11-7	Palygorskite (Attapulgite) (long fibres, > 5 micrometres)	2B	68	1997
012174-11-7	Palygorskite (Attapulgite)(short fibres, < 5 micrometres)	3	68	1997
000794-93-4	Panfuran S (containing dihydroxymethylfuratrizine)	2B	24, Sup 7	1987
000103-90-2	Paracetamol (Acetaminophen)	3	50, 73	1999
010048-32-5	Parasorbic acid	3	10, Sup 7	1987
000056-38-2	Parathion	2B	30, Sup 7, 112	2017
	Particulate matter in outdoor air pollution (see Outdoor air pollution, particulate matter in)			
000149-29-1	Patulin	3	40, Sup 7	1987
	Paving and roofing with coal-tar pitch (see Coal-tar pitch)		35, Sup 7, 92, 100F	2010
000090-65-3	Penicillic acid	3	10, Sup 7	1987
057465-28-8	3,4,5,3',4'-Pentachlorobiphenyl (PCB-126) (see Polychlorinated biphenyls, dioxin-like, with a TEF according to WHO)	1	100F	2012
057117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (NB: Overall evaluation upgraded to Group 1 based on mechanistic and other relevant data)	1	100F	2012
000076-01-7	Pentachloroethane	3	41, Sup 7, 71	1999
000087-86-5	Pentachlorophenol (see also Polychlorophenols)	1	53, 71, 117	In prep.
037319-17-8	Pentosan polysulfate sodium	2B	108	2016
000335-67-1	Perfluorooctanoic acid (PFOA)	2B	110	2017
052645-53-1	Permethrin	3	53	1991
000198-55-0	Perylene	3	Sup 7, 92	2010
060102-37-6	Petasitenine	3	31, Sup 7	1987
	Petroleum refining (occupational exposures in)	2A	45	1989
	Petroleum solvents	3	47	1989

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000062-44-2	Phenacetin	1	24, Sup 7, 100A	2012
	Phenacetin, analgesic mixtures containing	1	Sup 7, 100A	2012
000085-01-8	Phenanthrene	3	Sup 7, 92	2010
000136-40-3	Phenazopyridine hydrochloride	2B	24, Sup 7	1987
000156-51-4	Phenelzine sulfate	3	24, Sup 7	1987
000103-03-7	Phenicarbazide	3	12, Sup 7	1987
000050-06-6	Phenobarbital	2B	Sup 7, 79	2001
000108-95-2	Phenol	3	47, 71	1999
000077-09-8	Phenolphthalein	2B	76	2000
000063-92-3	Phenoxybenzamine hydrochloride	2B	24, Sup 7	1987
000050-33-9	Phenylbutazone	3	13, Sup 7	1987
000108-45-2	<i>meta</i> -Phenylenediamine	3	16, Sup 7	1987
000095-54-5	<i>ortho</i> -Phenylenediamine	2B	123	In prep.
000615-28-1	<i>ortho</i> -Phenylenediamine dihydrochloride	2B	123	In prep.
000106-50-3	<i>para</i> -Phenylenediamine	3	16, Sup 7	1987
000122-60-1	Phenyl glycidyl ether	2B	47, 71	1999
000135-88-6	<i>N</i> -Phenyl-2-naphthylamine	3	16, Sup 7	1987
000090-43-7	<i>ortho</i> -Phenylphenol	3	73	1999
000057-41-0	Phenytol	2B	Sup 7, 66	1996
105650-23-5	PhIP (2-Amino-1-methyl-6-phenylimidazo[4,5- <i>b</i> ]pyridine)	2B	56	1993
014596-37-3	Phosphorus-32, as phosphate	1	78, 100D	2012
000213-46-7	Picene	3	92	2010
	Pickled vegetables (traditional Asian)	2B	56	1993
001918-02-1	Picloram	3	53	1991
000198-99-6	$\beta$ -Picoline	3	122	In prep.
111025-46-8	Pioglitazone	2A	108	2016
000051-03-6	Piperonyl butoxide	3	30, Sup 7	1987
007440-07-5	Plutonium	1	78, 100D	2012
053973-98-1	Poligeenan (see Carrageenan, degraded)			
009003-01-4	Polyacrylic acid	3	19, Sup 7	1987
059536-65-1	Polybrominated biphenyls (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data, namely mechanistic similarity with polychlorinated biphenyls classified in Group 1)	2A	41, Sup 7, 107	2016

## Agents Classified by the IARC Monographs, Volumes 1–123

CAS No.	Agent	Group	Volume	Year <sup>1</sup>
001336-36-3	Polychlorinated biphenyls	1	18, Sup 7, 107	2016
	Polychlorinated biphenyls, dioxin-like, with a Toxicity Equivalency Factor (TEF) according to WHO (PCBs 77, 81, 105, 114, 118, 123, 126, 156, 157, 167, 169, 189) (NB: Overall evaluation upgraded to Group 1 with strong supporting evidence from other relevant data)	1	107	2016
	Polychlorinated dibenzo- <i>para</i> -dioxins (other than 2,3,7,8-tetrachlorodibenzo- <i>para</i> -dioxin)	3	69	1997
	Polychlorinated dibenzofurans (see 2,3,4,7,8-Pentachlorodibenzofuran)	3	69	1997
	Polychlorophenols and their sodium salts (mixed exposures) (see also Pentachlorophenol; 2,4,6-Trichlorophenol)	2B	53, 71	1999
009010-98-4	Polychloroprene	3	19, Sup 7	1987
009002-88-4	Polyethylene	3	19, Sup 7	1987
	Polymeric implants prepared as thin smooth films (with the exception of poly(glycolic acid))	2B	74	1999
009016-87-9	Polymethylene polyphenyl isocyanate	3	19, Sup 7	1987
009011-14-7	Polymethyl methacrylate	3	19, Sup 7	1987
009003-07-0	Polypropylene	3	19, Sup 7	1987
009003-53-6	Polystyrene	3	19, Sup 7	1987
009002-84-0	Polytetrafluoroethylene	3	19, Sup 7	1987
009009-54-5	Polyurethane foams	3	19, Sup 7	1987
009003-20-7	Polyvinyl acetate	3	19, Sup 7	1987
009002-89-5	Polyvinyl alcohol	3	19, Sup 7	1987
009002-86-2	Polyvinyl chloride	3	19, Sup 7	1987
009003-39-8	Polyvinyl pyrrolidone	3	19, Sup 7, 71	1987
003564-09-8	Ponceau 3R	2B	8, Sup 7	1987
003761-53-3	Ponceau MX	2B	8, Sup 7	1987
004548-53-2	Ponceau SX	3	8, Sup 7	1987
023746-34-1	Potassium bis(2-hydroxyethyl)dithiocarbamate	3	12, Sup 7	1987
007758-01-2	Potassium bromate	2B	Sup 7, 73	1999
002955-38-6	Prazepam	3	66	1996
029069-24-7	Prednimustine	3	50	1990
000053-03-2	Prednisone	3	26, Sup 7	1987
000125-33-7	Primidone	2B	108	2016
	Printing inks	3	65	1996
	Printing processes (occupational exposures in)	2B	65	1996

## Agents Classified by the IARC Monographs, Volumes 1–123

CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000366-70-1	Procarbazine hydrochloride (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	26, Sup 7	1987
	Processed meat (consumption of)	1	114	2018
	Proflavine salts	3	24, Sup 7	1987
	Progestins	2B	Sup 7	1987
	Progestogen-only contraceptives	2B	72	1999
000051-02-5	Pronetalol hydrochloride	3	13, Sup 7	1987
001120-71-4	1,3-Propane sultone (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	4, Sup 7, 71, 110	2017
000122-42-9	Propham	3	12, Sup 7	1987
000057-57-8	beta-Propiolactone	2B	4, Sup 7, 71	1999
000627-12-3	<i>n</i> -Propyl carbamate	3	12, Sup 7	1987
000115-07-1	Propylene	3	Sup 7, 60	1994
000075-56-9	Propylene oxide	2B	Sup 7, 60	1994
000051-52-5	Propylthiouracil	2B	Sup 7, 79	2001
087625-62-5	Ptaquiloside	3	40, Sup 7	1987
000089-82-7	Pulegone	2B	108	2016
	Pulp and paper manufacture	3	25, Sup 7	1987
000129-00-0	Pyrene	3	Sup 7, 92	2010
000110-86-1	Pyridine	2B	77, 119	In prep.
085878-62-2	Pyrido[3,4- <i>c</i> ]psoralen	3	40, Sup 7	1987
000058-14-0	Pyrimethamine	3	13, Sup 7	1987
000117-39-5	Quercetin	3	Sup 7, 73	1999
000091-22-5	Quinoline	2B	121	In prep.
000106-51-4	<i>para</i> -Quinone	3	15, Sup 7, 71	1999
000082-68-8	Quintozene (Pentachloronitrobenzene)	3	5, Sup 7	1987
	Radiofrequency electromagnetic fields <sup>2</sup>	2B	102	2013
	Radioiodines, including iodine-131	1	78, 100D	2012
	Radionuclides, alpha-particle-emitting, internally deposited (NB: Specific radionuclides for which there is <i>sufficient evidence</i> in humans are also listed individually as Group 1 agents)	1	78, 100D	2012
	Radionuclides, beta-particle-emitting, internally deposited (NB: Specific radionuclides for which there is <i>sufficient evidence</i> in humans are also listed individually as Group 1 agents)	1	78, 100D	2012

## Agents Classified by the IARC Monographs, Volumes 1–123

CAS No.	Agent	Group	Volume	Year <sup>1</sup>
013233-32-4	Radium-224 and its decay products	1	78, 100D	2012
013982-63-3	Radium-226 and its decay products	1	78, 100D	2012
015262-20-1	Radium-228 and its decay products	1	78, 100D	2012
010043-92-2	Radon-222 and its decay products	1	43, 78, 100D	2012
	Red meat (consumption of)	2A	114	2018
	Refractory ceramic fibres	2B	43, 81	2002
000050-55-5	Reserpine	3	24, Sup 7	1987
000108-46-3	Resorcinol	3	15, Sup 7, 71	1999
000480-54-6	Retrorsine	3	10, Sup 7	1987
000081-88-9	Rhodamine B	3	16, Sup 7	1987
000989-38-8	Rhodamine 6G	3	16, Sup 7	1987
023246-96-0	Riddelliine	2B	10, Sup 7, 82	2002
013292-46-1	Rifampicin	3	24, Sup 7	1987
026308-28-1	Ripazepam	3	66	1996
122320-73-4	Rosiglitazone	3	108	2016
	Rubber manufacturing industry	1	28, Sup 7, 100F	2012
023537-16-8	Rugulosin	3	40, Sup 7	1987
	Rock (stone) wool	3	43, 81	2002
008047-67-4	Saccharated iron oxide	3	2, Sup 7	1987
000081-07-2	Saccharin and its salts (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	Sup 7, 73	1999
000094-59-7	Safrole	2B	10, Sup 7	1987
	Salted fish, Chinese-style	1	56, 100E	2012
000085-83-6	Scarlet Red	3	8, Sup 7	1987
	<i>Schistosoma haematobium</i> (infection with)	1	61, 100B	2012
	<i>Schistosoma japonicum</i> (infection with)	2B	61	1994
	<i>Schistosoma mansoni</i> (infection with)	3	61	1994
007782-49-2	Selenium and selenium compounds	3	9, Sup 7	1987
000563-41-7	Semicarbazide hydrochloride	3	12, Sup 7	1987
013909-09-6	Semustine (see Methyl-CCNU)			
000480-81-9	Seneciophylline	3	10, Sup 7	1987
002318-18-5	Senkirkine	3	31, Sup 7	1987
015501-74-3	Sepiolite	3	Sup 7, 68	1997
068308-34-9	Shale oils	1	35, Sup 7, 100F	2012
	Shiftwork that involves circadian disruption	2A	98	2010
000138-59-0	Shikimic acid	3	40, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
007631-86-9	Silica, amorphous	3	Sup 7, 68	1997
014808-60-7	Silica dust, crystalline, in the form of quartz or cristobalite	1	Sup 7, 68, 100C	2012
	Silicone breast implants	3	74	1999
308076-74-6	Silicon carbide, fibrous	2B	111	2017
409-21-2	Silicon carbide whiskers	2A	111	2017
000122-34-9	Simazine	3	53, 73	1999
308068-56-6	Single-walled carbon nanotubes (see Carbon nanotubes, single-walled)			
	Slag wool	3	43, 81	2002
007758-19-2	Sodium chlorite	3	52	1991
000148-18-5	Sodium diethyldithiocarbamate	3	12, Sup 7	1987
000132-27-4	Sodium <i>ortho</i> -phenylphenate	2B	Sup 7, 73	1999
	Solar radiation	1	55, 100D	2012
	Soot (as found in occupational exposure of chimney sweeps)	1	35, Sup 7, 92, 100F	2012
	Special-purpose fibres such as E-glass and '475' glass fibres	2B	81	2002
000052-01-7	Spironolactone	3	Sup 7, 79	2001
010048-13-2	Sterigmatocystin	2B	10, Sup 7	1987
018883-66-4	Streptozotocin	2B	17, Sup 7	1987
007664-93-9	Strong-inorganic-acid mists containing sulfuric acid (see Acid mists)			
010098-97-2	Strontium-90 (see Fission products)			
000100-42-5	Styrene	2A	60, 82, 121	In prep.
009003-54-7	Styrene-acrylonitrile copolymers	3	19, Sup 7	1987
009003-55-8	Styrene-butadiene copolymers	3	19, Sup 7	1987
000096-09-3	Styrene-7,8-oxide (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	Sup 7, 60, 121	In prep.
000108-30-5	Succinic anhydride	3	15, Sup 7	1987
000842-07-9	Sudan I	3	8, Sup 7	1987
003118-97-6	Sudan II	3	8, Sup 7	1987
000085-86-9	Sudan III	3	8, Sup 7	1987
006416-57-5	Sudan Brown RR	3	8, Sup 7	1987
006368-72-5	Sudan Red 7B	3	8, Sup 7	1987
000127-69-5	Sulfafurazole (Sulfisoxazole)	3	24, Sup 7	1987
000095-06-7	Sulfallate	2B	30, Sup 7	1987



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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000057-68-1	Sulfamethazine (NB: Overall evaluation downgraded to Group 3 with supporting evidence from other relevant data)	3	79	2001
000723-46-6	Sulfamethoxazole	3	Sup 7, 79	2001
000599-79-1	Sulfasalazine	2B	108	2016
	Sulfites	3	54	1992
007446-09-5	Sulfur dioxide	3	54	1992
000505-60-2	Sulfur mustard	1	9, Sup 7, 100F	2012
	Sunlamps and sunbeds (see Ultraviolet-emitting tanning devices)			
002783-94-0	Sunset Yellow FCF	3	8, Sup 7	1987
	Surgical implants (see Ceramic implants, Dental materials, Implanted foreign bodies, Metallic implants, Organic polymeric materials, Orthopaedic implants, Polymeric implants, Silicone breast implants)			
	SV40 polyomavirus	3	104	2014
022571-95-5	Symphytine	3	31, Sup 7	1987
014807-96-6	Talc containing asbestiform fibres (see Asbestos)		42, Sup 7	1987
014807-96-6	Talc not containing asbestos or asbestiform fibres	3	42, Sup 7, 93	2010
014807-96-6	Talc-based body powder (perineal use of)	2B	93	2010
010540-29-1	Tamoxifen (NB: There is also conclusive evidence that tamoxifen reduces the risk of contralateral breast cancer in breast cancer patients)	1	66, 100A	2012
001401-55-4	Tannic acid and tannins	3	10, Sup 7	1987
	Tea	3	51	1991
000846-50-4	Temazepam	3	66	1996
029767-20-2	Teniposide (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	76	2000
008001-50-1	Terpene polychlorinates (Strobane <sup>®</sup> )	3	5, Sup 7	1987
000079-94-7	Tetrabromobisphenol A	2A	115	2018
014047-09-7	3,3',4,4'-Tetrachloroazobenzene (NB: Overall evaluation upgraded to Group 2A)	2A	117	In prep.
015721-02-5	2,2',5,5'-Tetrachlorobenzidine	3	27, Sup 7	1987
001746-01-6	2,3,7,8-Tetrachlorodibenzo- <i>para</i> -dioxin	1	Sup 7, 69, 100F	2012
000630-20-6	1,1,1,2-Tetrachloroethane	2B	41, Sup 7, 71, 106	2014
000079-34-5	1,1,2,2-Tetrachloroethane	2B	20, Sup 7, 71, 106	2014

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000127-18-4	Tetrachloroethylene (Perchloroethylene)	2A	Sup 7, 63, 106	2014
022248-79-9	Tetrachlorvinphos	2B	30, Sup 7, 112	2017
000116-14-3	Tetrafluoroethylene (NB: Overall evaluation upgraded to Group 2A)	2A	19, Sup 7, 71, 110	2017
000109-99-9	Tetrahydrofuran	2B	119	In prep.
	Tetrakis(hydroxymethyl)phosphonium salts	3	48, 71	1999
000509-14-8	Tetranitromethane	2B	65	1996
	Textile manufacturing industry (work in)	2B	48	1990
000083-67-0	Theobromine	3	51	1991
000058-55-9	Theophylline	3	51	1991
000062-55-5	Thioacetamide	2B	7, Sup 7	1987
000139-65-1	4,4'-Thiodianiline	2B	27, Sup 7	1987
000052-24-4	Thiotepa	1	Sup 7, 50, 100A	2012
000141-90-2	Thiouracil	2B	Sup 7, 79	2001
000062-56-6	Thiourea	3	Sup 7, 79	2001
000137-26-8	Thiram	3	Sup 7, 53	1991
007440-29-1	Thorium-232 and its decay products	1	78, 100D	2012
013463-67-7	Titanium dioxide	2B	47, 93	2010
	Tobacco, smokeless	1	Sup 7, 89, 100E	2012
	Tobacco smoke, second-hand	1	83, 100E	2012
	Tobacco smoking	1	83, 100E	2012
000108-88-3	Toluene	3	47, 71	1999
026471-62-5	Toluene diisocyanates	2B	39, Sup 7, 71	1999
000095-53-4	<i>ortho</i> -Toluidine	1	Sup 7, 77, 99, 100F	2012
089778-26-7	Toremifene	3	66	1996
008001-35-2	Toxaphene (Polychlorinated camphenes)	2B	Sup 7, 79	2001
	Toxins derived from certain <i>Fusarium</i> species (see <i>Fusarium</i> )			
000299-75-2	Treosulfan	1	26, Sup 7, 100A	2012
000396-01-0	Triamterene	2B	108	2016
021259-20-1	T <sub>2</sub> -Trichothecene	3	31, Sup 7	1987
000052-68-6	Trichlorfon	3	30, Sup 7	1987
000817-09-4	Trichlormethine (Trimustine hydrochloride)	2B	Sup 7, 50	1990

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000076-03-9	Trichloroacetic acid	2B	63, 84, 106	2014
000545-06-2	Trichloroacetone nitrile	3	52, 71	1999
000071-55-6	1,1,1-Trichloroethane	3	20, Sup 7, 71	1999
000079-00-5	1,1,2-Trichloroethane	3	52, 71	1999
000079-01-6	Trichloroethylene	1	Sup 7, 63, 106	2014
000088-06-2	2,4,6-Trichlorophenol (see also Polychlorophenols)	2B	117	In prep.
000096-18-4	1,2,3-Trichloropropane	2A	63	1995
000102-71-6	Triethanolamine	3	77	2000
001954-28-5	Triethylene glycol diglycidyl ether	3	11, Sup 7, 71	1999
001582-09-8	Trifluralin	3	53	1991
090370-29-9	4,4',6-Trimethylangelicin plus ultraviolet A radiation	3	Sup 7	1987
000137-17-7	2,4,5-Trimethylaniline	3	27, Sup 7	1987
000088-05-1	2,4,6-Trimethylaniline	3	27, Sup 7	1987
015625-89-5	Trimethylolpropane triacrylate, technical grade	2B	122	In prep.
003902-71-4	4,5',8-Trimethylpsoralen	3	40, Sup 7	1987
000118-96-7	2,4,6-Trinitrotoluene	3	65	1996
000217-59-4	Triphenylene	3	Sup 7, 92	2010
000068-76-8	Tris(aziridiny)- <i>para</i> -benzoquinone (Triaziquone)	3	9, Sup 7	1987
000545-55-1	Tris(1-aziridiny)phosphine oxide	3	9, Sup 7	1987
000051-18-3	2,4,6-Tris(1-aziridiny)- <i>s</i> -triazine	3	9, Sup 7	1987
000115-96-8	Tris(2-chloroethyl) phosphate	3	48, 71	1999
038571-73-2	1,2,3-Tris(chloromethoxy)propane	3	15, Sup 7, 71	1999
000126-72-7	Tris(2,3-dibromopropyl) phosphate (NB: Overall evaluation upgraded to Group 2A with supporting evidence from other relevant data)	2A	20, Sup 7, 71	1999
000057-39-6	Tris(2-methyl-1-aziridiny)phosphine oxide	3	9, Sup 7	1987
062450-06-0	Trp-P-1 (3-Amino-1,4-dimethyl-5 <i>H</i> -pyrido[4,3- <i>b</i> ]indole)	2B	31, Sup 7	1987
062450-07-1	Trp-P-2 (3-Amino-1-methyl-5 <i>H</i> -pyrido[4,3- <i>b</i> ]indole)	2B	31, Sup 7	1987
000072-57-1	Trypan blue	2B	8, Sup 7	1987
012070-12-1 007440-48-4	Tungsten carbide with cobalt metal (see Cobalt metal with tungsten carbide)			
	Ultraviolet radiation (wavelengths 100-400 nm, encompassing UVA, UVB, and UVC)	1	55, 100D*, 118 <sup>#</sup>	2018 online
	*Volume 100D concluded that there is <i>sufficient evidence</i> for ocular melanoma in welders			
	<sup>#</sup> Volume 118 concluded that ultraviolet emissions from welding are carcinogenic to humans (Group 1). There is sufficient evidence in humans for the carcinogenicity of ultraviolet emissions from welding)			

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
	Ultraviolet-emitting tanning devices	1	100D	2012
000066-75-1	Uracil mustard	2B	9, Sup 7	1987
	Urethane (see Ethyl carbamate)			
001314-62-1	Vanadium pentoxide	2B	86	2006
000128-66-5	Vat Yellow 4	3	48	1990
	Very hot beverages at above 65 °C (drinking)	2A	116	2018 online
000143-67-9	Vinblastine sulfate	3	26, Sup 7	1987
002068-78-2	Vincristine sulfate	3	26, Sup 7	1987
000108-05-4	Vinyl acetate	2B	Sup 7, 63	1995
000593-60-2	Vinyl bromide (NB: (1) Overall evaluation upgraded to Group 2A based on mechanistic and other relevant data; (2) For practical purposes, vinyl bromide should be considered to act similarly to the human carcinogen vinyl chloride.)	2A	39, Sup 7, 71, 97	2008
000075-01-4	Vinyl chloride	1	Sup 7, 97, 100F	2012
009003-22-9	Vinyl chloride-vinyl acetate copolymers	3	19, Sup 7	1987
000100-40-3	4-Vinylcyclohexene	2B	Sup 7, 60	1994
000106-87-6	4-Vinylcyclohexene diepoxide	2B	Sup 7, 60	1994
000075-02-5	Vinyl fluoride (NB: (1) Overall evaluation upgraded to Group 2A based on mechanistic and other relevant data; (2) For practical purposes, vinyl fluoride should be considered to act similarly to the human carcinogen vinyl chloride.)	2A	Sup 7, 63, 97	2008
000075-35-4	Vinylidene chloride	2B	39, Sup 7, 71, 119	In prep.
009011-06-7	Vinylidene chloride-vinyl chloride copolymers	3	19, Sup 7	1987
000075-38-7	Vinylidene fluoride	3	39, Sup 7, 71	1999
000088-12-0	N-Vinyl-2-pyrrolidone	3	19, Sup 7, 71	1999
025013-15-4	Vinyl toluene	3	60	1994
012001-79-5	Vitamin K substances	3	76	2000
	Welding fumes	1	49, 118	2018 online
013983-17-0	Wollastonite	3	Sup 7, 68	1997
	Wood dust	1	62, 100C	2012
	Wood smoke (see Biomass fuel, indoor emissions from household combustion)			
	X- and Gamma-Radiation	1	75, 100D	2012
001330-20-7	Xylenes	3	47, 71	1999
000095-68-1	2,4-Xylidine	3	16, Sup 7	1987
000095-78-3	2,5-Xylidine	3	16, Sup 7	1987

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CAS No.	Agent	Group	Volume	Year <sup>1</sup>
000085-84-7	Yellow AB	3	8, Sup 7	1987
000131-79-3	Yellow OB	3	8, Sup 7	1987
007481-89-2	Zalcitabine	2B	76	2000
000315-18-4	Zectran	3	12, Sup 7	1987
001318-02-1	Zeolites other than erionite (clinoptilolite, phillipsite, mordenite, non-fibrous Japanese zeolite, synthetic zeolites)	3	68	1997
030516-87-1	Zidovudine (AZT)	2B	76	2000
012122-67-7	Zineb	3	12, Sup 7	1987
000137-30-4	Ziram	3	Sup 7, 53	1991

<sup>1</sup> Year of publication in print; if published in electronic format only, this is stated as “online”

<sup>2</sup> Includes radiofrequency electromagnetic fields from wireless phones

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