Chapter NR 507

APPENDIX II

SUBSTANCES FOR ASSESSMENT MONITORING[1] AT MUNICIPAL SOLID WASTE LANDFILLS

Common name[2]	CAS RN[4]	Synonyms
Acenaphthene	83−32−9	1,2−Dihydroacenaphthylene
Acenaphthylene	208−96−8	
Acetone	67−64−1	2−Propanone
Acetonitrile	75−05−8	Methyl cyanide
Acetophenone	98−86−2	1−Phenylethanone
2−Acetylaminofluorene	53−96−3	N−9H−fluoren−2−yl−Acetamide; 2−AAF
Acrolein	107−02−8	2−Propenal
Acrylonitrile	107−13−1	2−Propenenitrile
Aldrin	309−00−2	1,4:5,8−Dimethanonaphthalene, 1,2,3,4,10,10−hexachloro−1,4,4a,5,8,8a−hexahydro− (1α,4α,4aβ,5α,8α−,8aβ)−
Allyl chloride	107−05−1	3−Chloro−1−propene
4−Aminobiphenyl	92−67−1	[1,1'−Biphenyl]−4−amine
Anthracene	120−12−7	
Antimony	7440−36−0	
Arsenic	7440−38−2	
Barium	7440−39−3	
Benzene	71−43−2	
Benzo[a]anthracene	56−55−3	Benzanthracene
Benzo[b]fluoranthene	205−99−2	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	207−08−9	
Benzo[ghi]perylene	191−24−2	
Benzo[a]pyrene	50−32−8	
Benzyl alcohol	100−51−6	Benzenemethanol
Beryllium	7440−41−7	
alpha−BHC	319−84−6	Cyclohexane, 1,2,3,4,5,6−hexachloro−,(1α,2α,3β,4α,5β, 6β)
beta−BHC	319−85−7	Cyclohexane, 1,2,3,4,5,6−hexachloro−,(1α,2β,3α,4β,5α,6β)−
delta−BHC	319−86−8	Cyclohexane, 1,2,3,4,5,6−hexachloro−,(1α,2α,3α,4β,5α,6β)−
gamma−BHC; Lindane	58−89−9	Cyclohexane, 1,2,3,4,5,6−hexachloro−,(1α,2α,3β,4α,5α,6β)−
Bis(2−chloroethoxy)methane	111−91−1	Ethane, 1,1'−[methylenebis(oxy)]bis−[2−chloro−
Bis(2−chloroethyl)ether	111−44−4	Ethane, 1,1'−oxybis[2−chloro−
Bis(2−chloro−1−methylethyl) ether [see note 4]	108−60−1	2,2'−Dichlorodiisopropylether
Bis(2−ethylhexyl) phthalate	117−81−7	1,2−Benzenedicarboxylic acid, bis(2−ethylhexyl)ester
Bromochloromethane	74−97−5	Chlorobromomethane
Bromodichloromethane	75−27−4	Dichlorobromomethane
Bromoform	75−25−2	Tribromomethane
4−Bromophenyl phenyl ether	101−55−3	Benzene, 1−bromo−4−phenoxy−

Common name[2]	CAS RN[4]	Synonyms
Butyl benzyl phthalate	85−68−7	Benzyl butyl phthalate
Cadmium	7440−43−9	
Carbon disulfide	75−15−0	
Carbon tetrachloride	56−23−5	Tetrachloromethane
Chlordane [see note 5]	57−74−9	4,7−Methano−1H−indene, 1,2,4,5,6,7,8,8−octachloro−2,3,3a,4,7,7a− hexahydro
p−Chloroaniline	106−47−8	Benzenamine, 4−chloro−
Chlorobenzene	108−90−7	Monochlorobenzene
Chlorobenzilate	510−15−6	Benzeneacetic acid, 4−chloro−α−(4−chlorophenyl)−α−hydroxy−, ethyl ester
p−Chloro−m−cresol	59−50−7	Phenol, 4−chloro−3−methyl−
Chloroethane	75−00−3	Ethyl chloride
Chloroform	67−66−3	Trichloromethane
2−Chloronaphthalene	91−58−7	
2−Chlorophenol	95−57−8	
4−Chlorophenyl phenyl ether	7005−72−3	Benzene, 1−chloro−4−phenoxy−
Chloroprene	126−99−8	1,3−Butadiene, 2−chloro−
Chromium	7440−47−3	
Chrysene	218−01−9	
Cobalt	7440−48−3	
Copper	7440−50−8	
m−Cresol	108−39−4	3−Methylphenol
o−Cresol	95−48−7	2−Methylphenol
p−Cresol	106−44−5	4−Methylphenol
Cyanide	57−12−5	
2,4−D; 2,4−Dichlorophenoxy−acetic acid	94−75−7	Acetic acid, (2,4−dichlorophenoxy)−
4,4'−DDD	72−54−8	Benzene 1,1'−(2,2−dichloroethylidene)bis[4−chloro−
4,4'−DDE	72−55−9	Benzene, 1,1'−(dichloroethenylidene)bis[4−chloro
4,4'−DDT	50−29−3	Benzene, 1,1'−(2,2,2−trichloroethylidene)bis[4−chloro
Diallate	2303−16−4	Carbamothioic acid, bis(1−methylethyl)− , S−(2,3−dichloro−2−propenyl) ester
Dibenzo[a,h]anthracene	53−70−3	Dibenz[a,h]anthracene
Dibenzofuran	132−64−9	
Dibromochloromethane	124−48−1	Chlorodibromomethane
1,2−Dibromo−3−chloropropane	96−12−8	DBCP
1,2−Dibromoethane	106−93−4	Ethylene dibromide, EDB
Di−n−butyl phthalate	84−74−2	1,2−Benzenedicarboxylic acid, dibutyl ester
o−Dichlorobenzene	95−50−1	1,2−Dichlorobenzene
m−Dichlorobenzene	541−73−1	1,3−Dichlorobenzene
p−Dichlorobenzene	106−46−7	1,4−Dichlorobenzene
3,3'−Dichlorobenzidine	91−94−1	[1,1'−Biphenyl]−4,4'−diamine, 3,3'−dichloro−
trans−1,4−Dichloro−2−butene	110−57−6	2−Butene, 1,4−dichloro−, (E)−
Dichlorodifluoromethane	75−71−8	Freon 12, CFC−12
1,1−Dichloroethane	75−34−3	Ethyldidene chloride
1,2−Dichloroethane	107−06−2	Ethylene dichloride

Common name[2]	CAS RN[4]	Synonyms
1,1−Dichloroethylene	75−35−4	Vinylidene chloride; 1,1−Dichloroethene
cis−1,2−Dichloroethylene	156−59−2	cis−1,2−Dichloroethene
trans−1,2−Dichloroethylene	156−60−5	trans−1,2−Dichloroethene
2,4−Dichlorophenol	120−83−2	
2,6−Dichlorophenol	87−65−0	
1,2−Dichloropropane	78−87−5	Propylene dichloride
1,3−Dichloropropane	142−28−9	Trimethylene chloride
2,2−Dichloropropane	594−20−7	
1,1−Dichloropropene	563−58−6	1,1−dichloropropylene .
cis−1,3−Dichloropropene	10061−01−5	1,3−dichloropropylene, (Z)
trans−1,3−Dichloropropene	10061−02−6	1,3−dichloropropylene, (E)
Dieldrin	60−57−1	2,7:3,6−Dimethanonaphth[2,3−b]oxirene, 3,4,5,6,9,9−hexachloro−1a,2,2a,3,6,6a,7,7a−octahydro−, (1aα,2β,2aα,3β,6β,6aα,7β,7aα)−
Diethyl phthalate	84−66−2	1,2−Benzenedicarboxylic acid, diethyl ester
O,O−Diethyl O−2−pyrazinyl phosphorothioate	297−97−2	Thionazin
Dimethoate	60−51−5	Phosphorodithioic acid, O,O−dimethyl S−[2−(methylamino)−2−oxoethyl] ester
p−(Dimethylamino)azobenzene	60−11−7	Benzenamine, N,N−dimethyl−4−(phenylazo)−
7,12−Dimethylbenz[a]anthracene	57−97−6	Benz[a]anthracene, 7,12−dimethyl−
3,3'−Dimethylbenzidine	119−93−7	[1,1'−Biphenyl]−4,4'−diamine, 3,3'−dimethyl−
2,4−Dimethylphenol	105−67−9	2,4−Dimethylphenol
Dimethyl phthalate	131−11−3	1,2−Benzenedicarboxylic acid, dimethyl ester
m−Dinitrobenzene	99−65−0	1,3−Dinitrobenzene
4,6−Dinitro−o−cresol	534−52−1	2−Methyl−4,6−dinitrophenol
2,4−Dinitrophenol	51−28−5	
2,4−Dinitrotoluene	121−14−2	1−Methyl−2,4−dinitrobenzene
2,6−Dinitrotoluene	606−20−2	2−Methyl−1,3−dinitrobenzene
Dinoseb	88−85−7	DNBP; 2−sec−Butyl−4,6−dinitrophenol
Di−n−octyl phthalate	117−84−0	1,2−Benzenedicarboxylic acid, dioctyl ester
Diphenylamine	122−39−4	Benzenamine, N−phenyl−
Disulfoton	298−04−4	Phosphorodithioic acid, O,O−diethyl S−[2−(ethylthio)ethyl]ester
Endosulfan I	959−98−8	6,9−Methano−2,4,3−benzodioxathiepin, 6,7,8,9,10,10−hexachloro−1,5,5a,6,9,9a hexahydro−, 3−oxide, (3α,5aβ,6α,9α,9aβ)−
Endosulfan II	33213−65−9	6,9−Methano−2,4,3−benzodioxathiepin, 6,7,8,9,10,10−hexachloro− 1,5,5a,6,9,9a−hexahydro−, 3−oxide, (3α,5aα,6β,9β,9aα)−
Endosulfan sulfate	1031−07−8	6,9−Methano−2,4,3−benzodioxathiepin, 6,7,8,9,10,10−hexachloro 1,5,5a,6,9,9a−hexahydro−, 3,3−dioxide
Endrin	72−20−8	2,7:3,6−Dimethanonaphth[2,3−b]oxirene, 3,4,5,6,9,9−hexachloro−1a,2,2a,3,6,6a7,7a−octahydro−, (1aα,2β,2aβ,3α,6α,6aβ,7β,7aα)−
Endrin aldehyde	7421−93−4	1,2,4−Methenocyclopenta[cd]pentalene−5−carboxaldehyde, 2,2a,3,3,4,7−hexachlorodecahydro−, (1α,2β,2aβ,4β,4aβ,5β,6aβ,6bβ,7R*)−
Ethylbenzene	100−41−4	

Common name[2]	CAS RN[4]	Synonyms
Ethyl methacrylate	97−63−2	2−Propenoic acid, 2−methyl−, ethyl ester
Ethyl methanesulfonate	62−50−0	Methanesulfonic acid, ethyl ester
Famphur	52−85−7	Phosphorothioic acid, O−[4−[(dimethylamino)sulfonyl]phenyl]−O,O−dimethyl ester
Fluoranthene	206−44−0	
Fluorene	86−73−7	9H−Fluorene
Heptachlor	76−44−8	4,7−Methano−1H−indene, 1,4,5,6,7,8,8−heptachloro−3a,4,7,7a−tetrahydro−
Heptachlor epoxide	1024−57−3	2,5−Methano−2H−indeno[1,2−b]oxirene, 2,3,4,5,6,7,7−heptachloro−1a,1b,5,5a,6,6a,−hexahydro,(1aα,1bβ,2α,5α,5aβ,6β,6aα)
Hexachlorobenzene	118−74−1	
Hexachlorobutadiene	87−68−3	1,3−Butadiene, 1,1,2,3,4,4−hexachloro−
Hexachlorocyclopentadiene	77−47−4	1,3−Cyclopentadiene, 1,2,3,4,5,5−hexachloro−
Hexachloroethane	67−72−1	
Hexachloropropene	1888−71−7	1−Propene, 1,1,2,3,3,3−hexachloro−
2−Hexanone	591−78−6	Methyl butyl ketone
Indeno(1,2,3−cd)pyrene	193−39−5	Indeno[1,2,3−cd]pyrene
Isobutyl alcohol	78−83−1	1−Propanol, 2−methyl−
Isodrin	465−73−6	1,4,5,8−Dimethanonaphthalene, 1,2,3,4,10,10−hexachloro−1,4,4a,5,8,8a hexahydro−(1α,4α,4aβ,5β,8β,8aβ)−
Isophorone	78−59−1	2−Cyclohexen−1−one, 3,5,5−trimethyl−
Isosafrole	120−58−1	1,3−Benzodioxole, 5−(1−propenyl)−
Kepone	143−50−0	1,3,4−Metheno−2H−cyclobuta− [cd]pentalen−2−one, 1,1a,3,3a,4,5,5,5a,5b,6−decachloro−octahydro−
Lead	7439−92−1	
Mercury	7439−97−6	
Methacrylonitrile	126−98−7	2−Propenenitrile, 2−methyl−
Methapyrilene	91−80−5	1,2,Ethanediamine, N,N−dimethyl−N'−2−pyridinyl−N'−(2−thienylmethyl)−
Methoxychlor	72−43−5	Benzene, 1,1'−(2,2,2,trichloroethylidene)bis [4−methoxy−
Methyl bromide	74−83−9	Bromomethane
Methyl chloride	74−87−3	Chloromethane
3−Methylcholanthrene	56−49−5	Benz[j]aceanthrylene, 1,2−dihydro−3−methyl−
Methyl ethyl ketone	78−93−3	2−Butanone; MEK
Methyl iodide	74−88−4	Iodomethane
Methyl methacrylate	80−62−6	2−Propenoic acid, 2−methyl−, methyl ester
Methyl methanesulfonate	66−27−3	Methanesulfonic acid, methyl ester
2−Methylnaphthalene	91−57−6	
Methyl parathion	298−00−0	Phosphorothioic acid, O,O−dimethyl O−(4−nitrophenyl) ester
4−Methyl−2−pentanone	108−10−1	Methyl isobutyl ketone
Methyl tert−butyl ether	1634−04−4	Methyl−t−butyl ether. MTBE
Methylene bromide	74−95−3	Dibromomethane
Methylene chloride	75−09−2	Dichloromethane
Naphthalene	91−20−3	

Common name[2]	CAS RN[4]	Synonyms
1,4−Naphthoquinone	130−15−4	1,4−Naphthalenedione
1−Naphthylamine	134−32−7	1−Naphthalenamine
2−Naphthylamine	91−59−8	2−Naphthalenamine
Nickel	7440−02−0	
o−Nitroaniline	88−74−4	2−Nitrobenzenamine
m−Nitroaniline	99−09−2	3−Nitrobenzenamine
p−Nitroaniline	100−01−6	4−Nitrobenzenamine
Nitrobenzene	98−95−3	
o−Nitrophenol	88−75−5	2−Nitrophenol
p−Nitrophenol	100−02−7	4−Nitrophenol
N−Nitrosodi−n−butylamine	924−16−3	1−Butanamine, N−butyl−N−nitroso−
N−Nitrosodiethylamine	55−18−5	Ethanamine, N−ethyl−N−nitroso−
N−Nitrosodimethylamine	62−75−9	Methanamine, N−methyl−N−nitroso−
N−Nitrosodiphenylamine	86−30−6	Benzenamine, N−nitroso−N−phenyl−
N−Nitrosodipropylamine	621−64−7	Di−n−propylnitrosamine
N−Nitrosomethylethylamine	10595−95−6	Ethanamine, N−methyl−N−nitroso−
N−Nitrosopiperidine	100−75−4	Piperidine, 1−nitroso−
N−Nitrosopyrrolidine	930−55−2	Pyrrolidine, 1−nitroso−
5−Nitro−o−toluidine	99−55−8	Benzenamine, 2−methyl−5−nitro−
Parathion	56−38−2	Phosphorothioic acid, O,O−diethyl−O−(4−nitrophenyl) ester
Pentachlorobenzene	608−93−5	
Pentachloronitrobenzene	82−68−8	
Pentachlorophenol	87−86−5	
Phenacetin	62−44−2	Acetamide, N−(4−ethoxyphenyl)
Phenanthrene	85−01−8	
Phenol	108−95−2	
p−Phenylenediamine	106−50−3	1,4−Benzenediamine
Phorate	298−02−2	Phosphorodithioic acid, O,O−diethyl S−[(ethylthio)methyl] ester
Polychlorinated biphenyls	See Note 6	PCBs; 1,1'−Biphenyl, chloro derivatives, Arochlors
Pronamide	23950−58−5	Benzamide, 3,5−dichloro−N− (1,1−dimethyl−2−propynyl)−
Propionitrile	107−12−0	Ethyl cyanide; Propanenitrile
Pyrene	129−00−0	
Pyridine	110−86−1	
Safrole	94−59−7	1,3−Benzodioxole, 5−(2−propenyl)−
Selenium	7782−49−2	
Silver	7440−22−4	
Silvex	93−72−1	2,4,5−TP; Propanoic acid, 2−(2,4,5−trichlorophenoxy)−
Styrene	100−42−5	Ethenylbenzene
Sulfide	18496−25−8	
2,4,5−T	93−76−5	2,4,5−Trichloro−phenoxyacetic acid
1,2,4,5−Tetrachlorobenzene	95−94−3	
1,1,1,2−Tetrachloroethane	630−20−6	
1,1,2,2−Tetrachloroethane	79−34−5	
Tetrachloroethylene	127−18−4	Perchloroethylene; Tetrachloroethene; PCE

Common name[2]	CAS RN[4]	Synonyms
2,3,4,6−Tetrachlorophenol	58−90−2	
Tetrahydrofuran	109−99−9	THF
Thallium	7440−28−0	
Tin	7440−31−5	
Toluene	108−88−3	Methylbenzene
o−Toluidine	95−53−4	2−Methylbenzenamine
Toxaphene	See note 7	
1,2,4−Trichlorobenzene	120−82−1	
1,1,1−Trichloroethane	71−55−6	Methylchloroform
1,1,2−Trichloroethane	79−00−5	
Trichloroethylene	79−01−6	Trichloroethene; TCE
Trichlorofluoromethane	75−69−4	Freon 11, Fluorotrichloromethane, CFC−11
2,4,5−Trichlorophenol	95−95−4	
2,4,6−Trichlorophenol	88−06−2	
1,2,3−Trichloropropane	96−18−4	
O,O,O−Triethyl phosphorothioate	126−68−1	Phosphorothioic acid, O,O,O−triethyl ester
sym−Trinitrobenzene	99−35−4	Benzene, 1,3,5−trinitro−
Vanadium	7440−62−2	
Vinyl acetate	108−05−4	Ethenyl ester acetic acid
Vinyl chloride	75−01−4	Chloroethene
Xylene (total)	See note 8	Dimethylbenzene
Zinc	7440−66−6	

1 This table includes all the substances required for assessment monitoring under RCRA Subtitle D (40 CFR Part 258 Appendix II). DNR GEMS parameter numbers for the substances in this table can be found at http://www.dnr.wi.gov/org/aw/wm/monitor/

2 Common names are those widely used in government regulations, scientific publications and commerce; synonyms exist for many chemicals.

3 Chemical Abstracts Service registry number.

4 This substance is often called Bis(2−chloroisopropyl) ether, the name the Chemical Abstracts Service applies to its noncommercial isomer, Propane, 2,2'−oxybis[2−chloro−(CAS RN 39638−32−9).

5 Chlordane: This entry includes alpha−chlordane (CAS RN 5103−71−9), beta−chlordane (CAS RN 5103−74−2), gamma−chlordane (CAS RN 5566−34−7), and constituents of chlordane (CAS RN 57−74−9 and CAS RN 12789−03−6).

6 Polychlorinated biphenyls (CAS RN 01336−36−3); this category contains congener chemicals, including constituents of Aroclor−1016 (CAS RN 12674−11−2), Aroclor−1221 (CAS RN 11104−28−2), Aroclor−1232 (CAS RN 11141−16−5), Aroclor−1242 (CAS RN 53469−21−9), Aroclor−1248 (CAS RN 12672−29−6), Aroclor−1254 (CAS RN 11097−69−1) and Aroclor−1260 (CAS RN 11096−82−5).

7 Toxaphene: This entry includes congener chemicals contained in technical toxaphene (CAS RN 8001−35−2), i.e., chlorinated camphene.

8 Xylene (total): This entry includes o−xylene (CAS RN 96−47−6), m−xylene (CAS RN 108−38−3), p−xylene (CAS RN 106−42−3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330−20−7).