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).