



Environmental Management Act
CONTAMINATED SITES REGULATION
B.C. Reg. 375/96

Deposited December 16, 1996 and effective April 1, 1997
Last amended March 11, 2021 by B.C. Reg. 64/2021

Consolidated Regulations of British Columbia

This is an unofficial consolidation.

SCHEDULE 3.3

[en. B.C. Reg. 131/2020, App. s. 12.]

**SCHEDULE 3.3
GENERIC NUMERICAL VAPOUR STANDARDS^{1,2,3,4,5}**

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
Substance	Chemical Abstract Service Number (CAS)	Agricultural, Urban Park, Residential Use Standard ⁶	Commercial Use Standard ⁷	Industrial Use Standard ⁸	Parkade Use Standard ⁹
acetaldehyde	75-07-0	4.5	1.5	40	35
acetone	67-64-1	2 000	5 500	35 000	15 000
acetone cyanohydrin	75-86-5	2	6	20	15
acetonitrile	75-05-8	60	200	550	500
acrolein	107-02-8	0.2 ¹⁰	0.2 ¹⁰	0.2 ¹⁰	0.2 ¹⁰
acrylonitrile	107-13-1	0.5 ¹⁰	0.5 ¹⁰	1.5	1
allyl chloride	107-05-1	1	3	9	8
ammonia (as N)	7664-41-7	100	300	900	800
benzene	71-43-2	1.5	4	10	10
benzotrifluoride	98-07-7	1 ¹⁰	1 ¹⁰	1 ¹⁰	1 ¹⁰
benzyl chloride	100-44-7	0.2	0.6	2	1.5
bis(2-chloro-1-methylethyl) ether	108-60-1	80	250	1 500	650
bis(2-chloroethyl) ether	111-44-4	1 ¹⁰	1 ¹⁰	1 ¹⁰	1 ¹⁰
bis(2-chloromethyl) ether	542-88-1	1 ¹⁰	1 ¹⁰	1 ¹⁰	1 ¹⁰
bromobenzene	108-86-1	60	200	550	500
bromodichloromethane [BDCM]	75-27-4	40	100	800	300
bromoform	75-25-2	9	30	85	75
bromomethane	74-83-9	5	15	45	40
butadiene, 1,3-	106-99-0	2 ¹⁰	2 ¹⁰	3	2.5
carbon disulfide	75-15-0	700	2 000	6 500	5 500
carbon tetrachloride	56-23-5	1.5	5	15	15
chlorine (Cl ₂)	7782-50-5	20 ¹⁰	20 ¹⁰	20 ¹⁰	20 ¹⁰
chloro-1,1-difluoroethane, 1-	75-68-3	50 000	150 000	450 000	400 000
chlorobenzene	108-90-7	10	30	90	80
chlorobenzotrifluoride, 4-	98-56-6	1.5	40	100	100
chlorobutane, 1-	109-69-3	80	250	1 500	650
chlorodifluoromethane	75-45-6	50 000	150 000	450 000	400 000

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chloroethane	75-00-3	10 000	30 000	90 000	80 000
chloroform	67-66-3	100	300	900	800
chloromethane	74-87-3	90	250	800	700
chloronitrobenzene, 4-	100-00-5	1 ¹⁰	2	5.5	5
chlorophenol, 2-	95-57-8	10	30	200	80
chloroprene	126-99-8	1 ¹⁰	1 ¹⁰	1 ¹⁰	1 ¹⁰
chloropropane, 2-	75-29-6	60	150	1 000	450
chlorotoluene, 2-	95-49-8	40	100	800	300
crotonaldehyde, trans-	123-73-9	2	6	40	15
cyanide	57-12-5	2 ¹⁰	3.5	25	9.5
cyanogen	460-19-5	10 ¹⁰	10 ¹⁰	40	15
cyanogen bromide	506-68-3	200	550	3 500	1 500
cyanogen chloride	506-77-4	100	300	2 000	800
1,2-dibromo-3-chloropropane, 1,2-	96-12-8	1 ¹⁰	1 ¹⁰	2	1.5
1,4-dibromobenzene	106-37-6	20	60	400	150
1,2-dibromochloromethane [DBCM]	124-48-1	40	100	800	300
1,2-dibromoethane	106-93-4	0.5 ¹⁰	0.5 ¹⁰	0.5 ¹⁰	0.5 ¹⁰
1,1-dichloro-2-butene	74-95-3	4	10	35	30
1,2-dichlorobenzene	764-41-0	1 ^{10,11}	1 ^{10,11}	1 ^{10,11}	1 ^{10,11}
1,2-dichloroethane	95-50-1	200	600	2 000	1 500
1,3-dichlorobenzene	541-73-1	60	200	1 000	500
1,4-dichlorobenzene	106-46-7	800	2 500	7 500	6 500
1,1,1-trifluoro-2,2,2-trifluoroethane	75-71-8	100	300	900	800
1,1-dichloroethane	75-34-3	500	1 500	4 500	4 000
1,2-dichloroethane	107-06-2	7	20	65	55
1,1-dichloroethylene	75-35-4	200	600	2 000	1 500
1,2-cis-dichloroethylene	156-59-2	60	200	550	500
1,2-trans-dichloroethylene	156-60-5	60	200	550	500
1,1-dichloromethane	75-09-2	600	2 000	5 500	5 000
1,2-dichloropropane	78-87-5	4	10	35	30

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dichloropropane, 1,3-	142-28-9	1	3	20	8
dichloropropene, 1,3- (cis + trans)	542-75-6	2.5	7.5	2.5	20
dicyclopentadiene	77-73-6	1 ¹⁰	1 ¹⁰	2.5	2.5
diethyl ether	60-29-7	400	1 000	8 000	3 000
dimethylamine	124-40-3	1 ¹⁰	1 ¹⁰	1 ¹⁰	1 ¹⁰
dimethylaniline, N,N- [DMA]	121-69-7	4	10	80	30
epichlorohydrin	106-89-8	1	3	9	8
epoxybutane, 1,2-	106-88-7	20	60	200	150
ethyl acetate	141-78-6	70	200	650	550
ethyl acrylate	140-88-5	8	25	75	65
ethyl methacrylate	97-63-2	300	900	2 500	2 500
ethylbenzene	100-41-4	1 000	3 000	9 000	8 000
ethylene oxide	75-21-8	10 ¹⁰	10 ¹⁰	10 ¹⁰	10 ¹⁰
furan	110-00-9	2	6	40	15
hexachlorobutadiene	87-68-3	1 ¹⁰	1.5	4	3.5
hexachlorocyclopentadiene	77-47-4	1 ¹⁰	1 ¹⁰	2	1.5
hexachloroethane	67-72-1	30	90	250	250
isopropylbenzene	98-82-8	400	1 000	3 500	3 000
methacrylonitrile	126-98-7	30	90	250	250
methyl acetate	79-20-9	2 000	6 000	40 000	15 000
methyl acrylate	96-33-3	20	60	200	150
methyl ethyl ketone [MEK]	78-93-3	5 000	15 000	45 000	40 000
methyl isobutyl ketone [MIBK]	108-10-1	3 000	9 000	25 000	25 000
methyl mercaptan	74-93-1	2 ¹⁰	3.5	20	9
methyl methacrylate	80-62-6	700	2 000	6 500	5 500
methyl tert-butyl ether [MTBE]	1634-04-4	3 000	9 000	25 000	25 000
methylcyclohexane	108-87-2	1 500	5 000	35 000	15 000
methylstyrene, alpha-	98-83-9	150	400	2 500	1 000
naphthalene	91-20-3	3	9	25	25
n-decane	124-18-5	2 500	8 000	25 000	20 000

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n-hexane	110-54-3	700	2 000	6 500	5 500
nitrobenzene	98-95-3	1 ¹⁰	1 ¹⁰	2.5	2
nitrotoluene, 2-	88-72-2	2	5.5	3.5	15
phosphine	7803-51-2	10 ¹⁰	10 ¹⁰	10 ¹⁰	10 ¹⁰
propylene oxide	75-56-9	2.5	8	2.5	20
pyridine	110-86-1	100	350	1 000	950
styrene	100-42-5	1 000	3 000	9 000	8 000
tetrachloroethane, 1,1,1,2-	630-20-6	1.5	4	10	10
tetrachloroethane, 1,1,1,2,2-	79-34-5	40	100	800	300
tetrachloroethylene	127-18-4	40	100	350	300
tetrahydrofuran	109-99-9	3.5	10	30	25
toluene	108-88-3	5 000	15 000	45 000	40 000
trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	30 000	90 000	250 000	250 000
trichlorobenzene, 1,2,4-	120-82-1	7	20	65	55
trichloroethane, 1,1,1-	71-55-6	5 000	15 000	45 000	40 000
trichloroethane, 1,1,2-	79-00-5	0.5 ¹⁰	0.6	2	1.5
trichloroethylene	79-01-6	2	6	20	15
trichlorofluoromethane	75-69-4	700	2 000	6 500	5 500
trichloropropane, 1,1,2-	598-77-6	10	30	200	80
trichloropropane, 1,2,3-	96-18-4	0.5 ¹⁰	0.9	2.5	2.5
trichloropropene, 1,2,3-	96-19-5	0.5 ¹⁰	0.9	2.5	2.5
triethylamine	121-44-8	7	20	65	55
trimethylbenzene, 1,2,4-	95-63-6	7	20	65	55
trimethylbenzene, 1,3,5-	108-67-8	3.5	10	65	25
vinyl acetate	108-05-4	200	600	2 000	1 500
vinyl bromide	593-60-2	1 ¹⁰	1 ¹⁰	3	2.5
vinyl chloride	75-01-4	1	3.5	10	9
VPHV ¹²	NA ¹³	1 000	3 000	11 500	8 000
xylenes, total ¹⁴	1330-20-7	100	300	900	800

Notes

- 1 All values in $\mu\text{g}/\text{m}^3$ unless otherwise stated. Substances must be analyzed using methods specified in the 2015 British Columbia Environmental Laboratory Manual, as updated from time to time, a director's protocol or alternative methods acceptable to a director.
- 2 Vapour standards of this schedule are specific to human health only. It is the responsibility of the responsible person for the site to ensure that use of the vapour standards of this schedule do not constitute a significant risk or hazard to ecological health.
- 3 Soil, sediment or water giving rise to vapours must be remediated to the applicable vapour use standard for the substance.
- 4 Vapour standards applied to soil vapour may be adjusted for depth dependent attenuation as specified in a director's protocol.
- 5 Vapour standards apply to water at any site, irrespective of the water or site use, which gives rise to contaminated vapours.
- 6 Vapour standards agricultural, urban park and residential uses apply to soil at agricultural land use, urban park land use and residential land use sites, as well as freshwater or marine sediment at sensitive sediment sites, that give rise to contaminated vapours. Residential use vapour standards apply at both residential low density land use and residential high density land use sites, that give rise to contaminated vapours.
- 7 Vapour standards for commercial use apply to soil vapour at commercial land use sites that give rise to contaminated vapours.
- 8 Vapour standards for industrial use apply to soil vapour at industrial land use sites and to freshwater or marine sediment at typical sediment sites that give rise to contaminated vapours.
- 9 Vapour standards for parkade use apply to soil vapour adjacent to parkades, irrespective of the site use that gives rise to contaminated vapours.
- 10 Standard is adjusted based on the 2016 British Columbia Environmental Laboratory Technical Advisory Committee reference analytical detection limit for the substance.
- 11 Standard for the substance applies to the sum of *cis* and *trans* isomers vapour concentrations.
- 12 VPHV – Volatile Petroleum Hydrocarbons in vapour includes the sum of those compounds that elute on a 100% polydimethylsiloxane gas chromatographic column between the retention times for *n*-hexane (nC6) and *n*-tridecane (nC13) minus the sum of benzene, ethylbenzene, *n*-decane, *n*-hexane, styrene, toluene and xylenes.
- 13 NA – not applicable. No CAS number exists for the substance.
- 14 Standard for the substance applies to the sum of *ortho*, *meta* and *para* isomers vapour concentrations.