Our Drinking Water Quality

The quality of our drinking water is regulated by the Environmental Public Health (Water Suitable for Drinking) (No.2) Regulations 2019. The drinking water standards set out under the EPH Regulations were based on the WHO Guidelines for Drinking-water Quality. PUB will make continuous effort to maintain drinking water quality at the highest possible level.

Singapore Drinking Water Quality (January 2023 - December 2023)

Source : PUB's Water Quality Department

Parameters	Unit	WHO Guideline Value[Note (1)]	Environmental Public Health (Water Suitable for Drinking) (No.2) Regulations 2019	Average	Range	Compliance
Microbiological Parameter						
Escherichia coli (E. coli)	cfu/100mL	<1	<1	<1	<1	✓
Physical Parameters						
Colour	Hazen	-	15	<5	<5	✓
Conductivity	µS/cm	-	-	222	95 - 587	-
Odour	TON	-	-	Unobjectionable	Unobjectionable	-
pH Value	Units	-	6.5 - 9.5	8.2	7.8 - 8.8	✓
Total Dissolved Solids	mg/L	-	-	110	72 - 354	-
Turbidity	NTU	-	5	0.14	0.05 - 0.45	✓
Radiological Parameters						
Gross Alpha	Bq/L	0.5[Note (2)]	0.5	<0.05	<0.05 - 0.104	✓
Gross Beta	Bq/L	1[Note (2)]	1	0.080	<0.05 - 0.181	✓
Radon-222	Bq/L	-	100	<0.60	<0.60 - 0.79	✓
Chemical Parameters						
Acrylamide	µg/L	0.5	0.5	<0.2	<0.2	✓
Alachlor	µg/L	20	20	<1	<1	✓
Aldicarb Sulfoxide and Aldicarb Sulfone	µg/L	10	10	<0.05	<0.05	✓
Aldrin and Dieldrin	µg/L	0.03	0.03	<0.01	<0.01	✓
Antimony	µg/L	20	20	<1	<1	✓
Arsenic	µg/L	10	10	<0.50	<0.50 - 0.61	✓
Atrazine and its chloro-s-triazine metabolites	µg/L	100	100	<0.2	<0.2	✓
Aluminium	mg/L	-	0.1 [Note (3)]	<0.019	<0.019 - 0.083	✓
Barium	mg/L	1.3	1.3	0.017	<0.004 - 0.038	✓
Bentazone	µg/L	-	500	<0.05	<0.05	✓
Benzene	µg/L	10	10	<1	<1	✓

Parameters	Unit	WHO Guideline Value[Note (1)]	Environmental Public Health (Water Suitable for Drinking) (No.2) Regulations 2019	Average	Range	Compliance
Benzo*[a]* pyrene	µg/L	0.7	0.7	<0.07	<0.07	✓
Boron	mg/L	2.4	2.4	0.292	0.009 - 0.538	✓
Bromate	mg/L	0.01	0.01	<0.002	<0.002 - 0.005	✓
Bromodichloromethane	µg/L	60	60	7.0	<5 - 16.5	✓
Bromoform	µg/L	100	100	<5	<5 - 9.3	✓
Cadmium	µg/L	3	3	<0.2	<0.2	✓
Calcium	mg/L	-	-	16.5	7.2 - 77.7	-
Carbofuran	µg/L	7	7	<0.05	<0.05	✓
Carbon Tetrachloride	µg/L	4	4	<0.4	<0.4	✓
Chlorate	mg/L	0.7	0.7	0.15	<0.043 - 0.463	✓
Chlordane (total isomers)	µg/L	0.2	0.2	<0.02	<0.02	✓
Chloride	mg/L	-	-	28	<5 - 154	-
Chlorine	mg/L	5	5	2.27	1.34 - 2.86	✓
Chlorite	mg/L	0.7	0.7	<0.015	<0.015	✓
Chloroform	µg/L	300	300	13	<5- 52.9	✓
Chlorotoluron	µg/L	30	30	<0.05	<0.05	✓
Chlorpyrifos	µg/L	30	30	<0.1	<0.1	✓
Chromium	mg/L	0.05	0.05	<0.005	<0.005	✓
Copper	mg/L	2	2	<0.002	<0.002 - 0.005	✓
Cyanazine	µg/L	0.6	0.6	<0.2	<0.2	✓
Cyanide	mg/L	-	0.07	<0.002	<0.002	✓
Cyanogen chloride (as cyanide)	µg/L	-	70	<50	<50	✓
Cylindrospermopsins (Total)	µg/L	0.7	-	<0.1	<0.1	✓
2,4-D (2,4-dichlorophenoxyacetic acid) in free acid form	µg/L	30	30	<0.05	<0.05	✓
2,4-DB [4-(2,4-Dichlorophenoxy)butyric acid]	µg/L	90	90	<0.05	<0.05	✓
DDT and metabolites	µg/L	1	1	<0.01	<0.01	✓
Di(2-Ethylhexyl) phthalate	µg/L	8	8	<1	<1	✓
1,2-Dibromo-3-Chloropropane (DBCP)	µg/L	1	1	<0.1	<0.1	✓
Dibromoacetonitrile	µg/L	70	70	<7	<7	✓
Dibromochloromethane	µg/L	100	100	<5	<5 - 12.7	✓
Dibromoethane, 1,2- (Ethylene Dibromide)	µg/L	0.4	0.4	<0.05	<0.05	✓
Dichloroacetate	µg/L	50	50	9	<5 - 39.6	✓
Dichloroacetonitrile	µg/L	20	20	<1	<1 - 6.41	✓
Dichlorobenzene, 1,2-	µg/L	1000	1000	<1	<1	✓
Dichlorobenzene, 1,4-	µg/L	300	300	<1	<1	✓
Dichloroethane, 1,2-	µg/L	30	30	<2	<2	✓
Dichloroethene (cis & trans), 1,2-	µg/L	50	50	<5	<5	✓
Dichloromethane	µg/L	20	20	<3	<3	✓
Dichloropropane, 1,2-	µg/L	40	40	<1	<1	✓
Dichloropropene, 1,3-	µg/L	20	20	<2	<2	✓

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Dichlorvos	µg/L	-	20	<0.02	<0.02	✓
Dicofol	µg/L	-	10	<0.01	<0.01	✓
Dichlorprop	µg/L	100	100	<0.05	<0.05	✓
Dimethoate	µg/L	6	6	<0.1	<0.1	✓
Dioxane, 1,4-	µg/L	50	50	<1	<1	✓
Diquat	µg/L	-	30	<2.5	<2.5	✓
Endrin	µg/L	0.6	0.6	<0.01	<0.01	✓
Epichlorohydrin	µg/L	0.4	0.4	<0.1	<0.1	✓
Ethylbenzene	µg/L	300	300	<1	<1	✓
Edetic acid (EDTA-Ethylene Diamine Tetraacetic Acid) in free acid form	µg/L	600	600	<1	<1	✓
Fenoprop (2,4,5-TP; 2,4,5-trichlorophenoxy propionic acid)	µg/L	9	9	<0.05	<0.05	✓
Fluoride	mg/L	1.5	0.7	0.45	0.1 - 0.55	✓
Glyphosate and Aminomethylphosphonic acid (AMPA)	µg/L	-	900	<5	<5	✓
Hexachlorobutadiene	µg/L	0.6	0.6	<0.01	<0.01	✓
Hydroyatrazine	µg/L	200	200	<0.5	<0.5	✓
Isoproturon	µg/L	9	9	<0.05	<0.05	✓
Iron	mg/L	-	-	<0.003	<0.003 - 0.034	-
Lead	µg/L	10	10	<0.5	<0.5	✓
Lindane	µg/L	2	2	<0.01	<0.01	✓
Malathion	µg/L	-	900	<0.02	<0.02	✓
MCPA (4-Chloro-2-methylphenoxyacetic acid)	µg/L	-	700	<0.05	<0.05	✓
Mecoprop [MCPP; 2-(2-methyl-chlorophenoxy) propionic acid]	µg/L	10	10	<0.05	<0.05	✓
Mercury, in inorganic form	µg/L	6	6	<0.03	<0.03	✓
Methoxychlor	µg/L	20	20	<0.01	<0.01	✓
Metolachlor	µg/L	10	10	<1	<1	✓
Microcystin-LR	µg/L	-	1	<0.1	<0.1	✓
Microcystins (Total)	µg/L	1	-	<0.5	<0.5	✓
Molinate	µg/L	6	6	<0.6	<0.6	✓
Monochloramine	mg/L	3	3	2.07	1.25 - 2.77	✓
Monochloroacetic acid (chloroacetic acid)	µg/L	20	20	<10	<10	✓
Manganese	mg/L	0.08	0.4	<0.002	<0.002 - 0.017	✓
Magnesium	mg/L	-	-	0.30	<0.027 - 2.50	-
Molybdenum	mg/L	-	0.07	<0.004	<0.004	✓
Nickel	mg/L	0.07	0.07	<0.003	<0.003	✓
Nitrate (as N)	mg/L	11	11	0.12	<0.01 - 0.88	✓
Nitrilotriacetic acid (NTA)	µg/L	200	200	<1	<1	✓
Nitrite (as N)	mg/L	0.9	0.9	<0.01	<0.01 - 0.03	✓
Nitrate plus nitrite combined	units	1	1	0.011	<0.01 - 0.078	✓
N-Nitrosodimethylamine (NDMA)	ng/L	100	100	<2	<2 - 4.8	✓
Pendimethalin	µg/L	20	20	<1	<1	✓

Parameters	Unit	WHO Guideline Value[Note (1)]	Environmental Public Health (Water Suitable for Drinking) (No.2) Regulations 2019	Average	Range	Compliance
Pentachlorophenol	µg/L	9	9	<0.5	<0.5	✓
Perchlorate	µg/L	70	70	<2	<2	✓
Permethrin, where used as a larvicide for public health purposes	µg/L	-	300	<2	<2	✓
Pyriproxyfen	µg/L	-	300	<0.05	<0.05	✓
Saxitoxins (Total)	µg/L	3	-	<0.1	<0.1	✓
Selenium	µg/L	40	40	<0.5	<0.5	✓
Simazine	µg/L	2	2	<0.2	<0.2	✓
Styrene	µg/L	20	20	<2	<2	✓
Sulphate	mg/L	-	-	7.5	1.5 - 76.9	-
Silica (as SiO_2)	mg/L	-	-	1.22	0.17 - 6.85	-
Sodium	mg/L	-	-	9.9	1.6 - 36.5	-
Terbuthylazine (TBA)	µg/L	7	7	<0.7	<0.7	✓
Tetrachloroethene	µg/L	100	40	<1	<1	✓
Toluene	µg/L	700	700	<5	<5	✓
Trichloroethene	µg/L	8	20	<1	<1	✓
Trichlorophenol, 2,4,6-	µg/L	200	200	<1	<1	✓
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	µg/L	9	9	<0.05	<0.05	✓
Trichloroacetate	µg/L	200	200	<5	<5 - 19.1	✓
Trifluralin	µg/L	20	20	<1	<1	✓
Total Trihalomethanes Ratio	units	<1	<1	<0.2	<0.2 - 0.45	✓
Total Organic Carbon (TOC)	mg/L	-	-	0.9	<0.1 - 1.75	-
Total Alkalinity (as $CaCO_3$)	mg/L	-	-	35	7 - 66	-
Total Hardness (as $CaCO_3$)	mg/L	-	-	43	19- 203	-
Total Phosphorous (as P)	mg/L	-	-	<0.003	<0.003 - 0.055	-
Uranium	µg/L	30	30	0.007	<0.001 - 0.035	✓
Vinyl Chloride	µg/L	0.3	0.3	<0.1	<0.1	✓
Xylenes	µg/L	500	500	<15	<15	✓

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The drinking water standards set out under the Environmental Public Health (EPH) Regulations were based on the World Health Organisation (WHO) Guidelines for Drinking-water Quality.

The table above provides the data of drinking water quality produced by the Waterworks and Desalination Plants.

Note (1) WHO Guideline Values listed in this report are obtained from WHO Guidelines for Drinking-Water Quality (2022) 4th Edition, Incorporating 1st and 2nd Addenda

Note (2) These are WHO screening values and not guideline values.

Note (3) Code of Practice on Drinking Water Sampling and Safety Plans :-

Aluminium controlled at 0.1mg/L or less in large water treatment facilities that serve 10,000 or more people (Applicable to all Singapore and Johor Waterworks except Pulau Tekong Waterworks).