

National Environmental Standard related to water quality (unofficial translation)

Surface water quality

Parameter	Symbol	standard value of each category					Unit	Methodology
		1	2	3	4	5		
Color, Oder and Taste	None	n	n'	n'	n'	None	Not define	Not define
Temperature	t°C	n	n'	n'	n'	Not define	°C	Thermometer
potential of Hydrogen	pH	6-8	6-8	5-9	5-9	Not define	Not define	Electrometric pH Meter
Dissolved Oxygen	DO	>7	6.0	4.0	2.0	< 2	mg/L	Azide Modification
Electro-conductivity	Ec	< 500	≤1000	≤2000	≤4000	>4000	μS/cm	Ec meter
chemical oxygen demand	COD	<5	5-7	7-10	10-12	>12	mg/L	Potassium Dichromate Digestion; Open Reflux or Closed Reflux
Total coliform bacteria	Not define	n	5,000	20,000	Not define	Not define	MPN/100 ml	Multiple Tube Fermentation Technique
Fecal coliform bacteria	Not define	n	1,000	4,000	Not define	Not define	MPN/100 ml	Multiple Tube Fermentation Technique
Total Suspended Solid	TSS	<10	≤25	≤40	≤60	>60	mg/L	Glass Fiber Filter Disc
Phosphate	PO ₄	< 0.1	0.5	1	2	>2	mg/L	Ascorbic acid
Ammonium ion	NH ₄ ⁺	< 0.5	≤1.5	≤3	≤4	>4	mg/L	Kjeldahl
Nitrate-Nitrogen	NO ₃ -N	n	5.0			Not define	mg/L	Cadmium Reduction
Ammonia-Nitrogen	NH ₃ -N	n	0.5			Not define	mg/L	Distillation Nesslerization
Phenol	C ₆ H ₅ OH	n	0.005			Not define	mg/L	Distillation,4-Amino antipyrone
Copper	Cu	n	1.5			Not define	mg/L	AA-Direct Aspiration
Nickel	Ni	n	0.1			Not define	mg/L	
Manganese	Mn	n	1.0			Not define	mg/L	
Zinc	Zn	n	1.0			Not define	mg/L	
Cadmium	Cd	n	0.003			Not define	mg/L	
Chromium Hexavalent	Cr ⁺⁶	n	0.05			Not define	mg/L	
Lead	Pb	n	0.01			Not define	mg/L	
Mercury	Hg	n	0.001			Not define	mg/L	AA-Cold Vapour Technique

Asenic	As	n	0.01	Not define	mg/L	AA -Direct Aspiration, ICP
Cyanide	CN ⁻	n	0.07	Not define	mg/L	Pyridine- Barbituric Acid
Radioactive - alfa - beta	Radioactive -α -β	n	0.1 1.0	Not define	Becquerel/L	GC
Organochlorine pesticide		n	0.05	Not define	mg/L	
Dichlorodiphenyltrichloroethane	DDT	n	1.0	Not define	µg/L	
alpha-Benzene hexachloride	α -BHC (C ₆ H ₆ Cl ₆)	n	0.02	Not define	µg/L	GC
Dieldrin	C ₁₂ H ₈ Cl ₆ O	n	0.1	Not define	µg/L	
Aldrin	C ₁₂ H ₈ Cl ₆	n	0.1	Not define	µg/L	
heptachlor and heptachlor epoxide	C ₁₀ H ₅ Cl ₇ And C ₁₀ H ₅ Cl ₇ O	n	0.2	Not define	µg/L	
Endrin	C ₁₂ H ₈ Cl ₆ O	n	Must be not found	Not define	µg/L	

Category 1: It is a natural source of good quality water, does not go through any production process or chemical additives and is free from wastewater from all kinds of activities.

Category 2: It is a source of water that is used and consumed but must be disinfected. This type of water is suitable for the conservation of aquatic animals, fisheries, water sports and so on.

Category 3: It is a source of water for consumption and must be sterilized, this type of water is suitable for agriculture, animal husbandry and so on.

Category 4: It is a source of water that is used and consumed but must be sterilized, this type of water is suitable for industry, as a place to treat wastewater from the city or community and so on.

Category 5: It is a source of water that is used for transportation and be reservoir for treatment of wastewater from cities or communities, and so on.

n: It is a natural water source

n': It is a natural water source but does not change ±3°C in temperature