



**China's Environmental Quality Standards for Surface Water**

#	Parameter	Concentration, mg/L				
		Class 1	Class 2	Class 3	Class 4	Class 5
All the water bodies should not contain the following substances resulted by non-natural reasons.						
1	Fundamental requirements	<ul style="list-style-type: none"> <li>a. substances that can precipitate and become disgusting sediments;</li> <li>b. floating matter, such as fragment, floating slag, oil and other matter that leads to unpleasant perception;</li> <li>c. substances that produce disgusting color, smell and turbidity;</li> <li>d. substances that are harmful, toxic to or has negative physical effects on human beings, animals and plants;</li> <li>e. substances that benefits the disgusting aquatic organism.</li> </ul>				
2	Water temperature °C	The water temperature variations caused by human activities should be controlled within: The maximum average weekly temperature rise in summer $\leq 1$ ; The maximum average weekly temperature drop $\leq 2$ ;				
3	pH	6.5~8.5			6~9	
4	Sulfate* (by $\text{SO}_4^{-2}$ ) $\leq$	Lower than 250	250	250	250	250
5	Chloride* (by Cl <sup>-</sup> ) $\leq$	Lower than 250	250	250	250	250
6	Soluble Fe* $\leq$	Lower than 0.3	0.3	0.5	0.5	1.0

\*) The Environmental Protection Law and Law of Water Pollution Prevention and Control of People's Republic of China





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7	Total Manganese* (Mn) ≤	Lower than 0.1	0.1	0.1	0.5	1.0
8	Total Copper* ≤	Lower than 0.01	1.0 (fishery 0.01)	1.0 (fishery 0.01)	1.0	1.0
9	Total Zine* ≤	0.05	1.0 (fishery0.1)	1.0 (fishery 0.1)	2.0	2.0
10	Nitrate (by N) ≤	Lower than 10	10	20	20	25
11	Nitrite (by N) ≤	0.06	0.1	0.15	1.0	1.0
12	Non-ionic Nitrogen ≤	0.02	0.02	0.02	0.2	0.2
13	Kjeldahl Nitrogen ≤	0.5	0.5	1	2	2
14	Total Phosphorus (by P) ≤	0.02	0.1 (lakes,reservoirs 0.025)	0.1 (lakes,reservoirs 0.05)	0.2	0.2
15	Permanganate Index ≤	2	4	6	8	10
16	Soluble Oxygen ≤	Percentage of saturation 90%	6	5	3	2
17	Chemical Oxygen Demand (COD <sub>Cr</sub> ) ≤	Lower than 15	Lower than 15	15	20	25
18	Biochemical Oxygen Demand (BOD <sub>5</sub> ) ≤	Lower than 3	3	4	6	10
19	Fluoride (F <sup>-</sup> ) ≤	Lower than 1.0	1.0	1.0	1.5	1.5
20	Selenium (four) ≤	Lower than 0.01	0.01	0.01	0.02	0.02
21	Total Arsenic ≤	0.05	0.05	0.05	0.1	0.1

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22	Total Mercury** ≤	0.00005	0.00005	0.0001	0.001	0.001
23	Total Cadmium*** ≤	0.001	0.005	0.005	0.005	0.01
24	Total Chromium (six) ≤	0.01	0.05	0.05	0.05	0.1
25	Total Lead** ≤	0.01	0.05	0.05	0.05	0.1
26	Total Cyanide ≤	0.005	0.05 (fishery 0.005)	0.2 (fishery 0.005)	0.2	0.2
27	Volatile Phenol** ≤	0.002	0.002	0.005	0.01	0.1
28	Oil Category ** ≤	0.05	0.05	0.05	0.5	1.0
29	Anionic Surface-active Agent ≤	Lower than 0.2	0.2	0.2	0.3	0.3
30	Total Coliform Group Bacteria ***(/L) ≤			1000		
31	Benzo(a)pyrene ***(ug/L) ≤	0.0025	0.0025	0.0025		

**NOTES**

**Class 1** is mainly applicable to the water from sources, and the national nature reserves.

**Class 2** is mainly applicable to first class of protected areas for centralized sources of drinking water, the protected areas for rare fishes, and the spawning fields of fishes and **shrimps**.

**Class 3** is mainly applicable to second class of protected areas for centralized sources of drinking water, protected areas for the common fishes and swimming areas.

**Class 4** is mainly applicable to the water areas for industrial use and entertainment which is not directly touched by human bodies.

**Class 5** is mainly applicable to the water bodies for agricultural use and landscape requirement.

\* The items permitted to be appropriately adjusted according to the background characteristic of the local water body.

\*\* The lowest measurement values in the stipulated analysis and measurement methods, which can not meet the fundamental requirements.

\*\*\* Tentative standards.

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