



Indian National Drinking Water Quality Standards

Organoleptic and Physical Parameters

#	Characteristic	Requirements (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of IS 3025	Remarks
1	Colour, Hazen units, <i>Max</i>	5	15	Part 4	Extended to 15 only, if toxic substances are not suspected in absence of alternate sources
2	Odour	Agreeable	Agreeable	Part 5	a) Test cold and when heated b) Test at several dilutions
3	pH value	6.5-8.5	No relaxation	Part 11	—
4	Taste	Agreeable	Agreeable	Part 7 and 8	Test to be conducted only after safety has been established
5	Turbidity, NTU, <i>Max</i>	1	5	Part 10	—
6	Total dissolved solids, mg/l, <i>max</i>	500	2000	Part 16	—

NOTE — It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected.

*) IS 10500 : 2012





General Parameters Concerning Substances Undesirable in Excessive Amounts

#	Characteristic	Requirements (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of	Remarks
1	Aluminium (as Al), mg/l, <i>Max</i>	0.03	0.2	IS 3025 (Part 55)	—
2	Ammonia (as total ammonia-N), mg/l, <i>Max</i>	0.5	No relaxation	IS 3025 (Part 34)	—
3	Anionic detergents (as MBAS) mg/l, <i>Max</i>	0.2	1.0	Annex K of IS 13428	—
4	Barium (as Ba), mg/l, <i>Max</i>	0.7	No relaxation	Annex F of IS 13428* or IS 15302	—
5	Boron (as B), mg/l, <i>Max</i>	0.5	1.0	IS 3025 (Part 57)	—
6	Calcium (as Ca), mg/l, <i>Max</i>	75	200	IS 3025 (Part 40)	—
7	Chloramines (as Cl ₂), mg/l, <i>Max</i>	4.0	No relaxation	IS 3025 (Part 26)* or APHA 4500-Cl G	—
8	Chloride (as Cl), mg/l, <i>Max</i>	250	1 000	IS 3025 (Part 32)	—
9	Copper (as Cu), mg/l, <i>Max</i>	0.05	1.5	IS 3025 (Part 42)	—
10	Fluoride (as F) mg/l, <i>Max</i>	1.0	1.5	IS 3025 (Part 60)	—
11	Free residual chlorine, mg/l, <i>Min</i>	0.2	1	IS 3025 (Part 26)	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l

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12	Iron (as Fe), mg/l, <i>Max</i>	0.3	No relaxation	IS 3025 (Part 53)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
13	Magnesium (as Mg), mg/l, <i>Max</i>	30	100	IS 3025 (Part 46)	—
14	Manganese (as Mn), mg/l, <i>Max</i>	0.1	0.3	IS 3025 (Part 59)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
15	Mineral oil, mg/l, <i>Max</i>	0.5	No relaxation	Clause 6 of IS 3025 (Part 39) Infrared partition method	—
16	Nitrate (as NO ₃), mg/l, <i>Max</i>	45	No relaxation	IS 3025 (Part 34)	—
17	Phenolic compounds (as C ₆ H ₅ OH), mg/l, <i>Max</i>	0.001	0.002	IS 3025 (Part 43)	—
18	Selenium (as Se), mg/l, <i>Max</i>	0.01	No relaxation	IS 3025 (Part 56) or IS 15303*	—
19	Silver (as Ag), mg/l, <i>Max</i>	0.1	No relaxation	Annex J of IS 13428	—
20	Sulphate (as SO ₄) mg/l, <i>Max</i>	200	400	IS 3025 (Part 24)	May be extended to 400 provided that Magnesium does not exceed 30
21	Sulphide (as H ₂ S), mg/l, <i>Max</i>	0.05	No relaxation	IS 3025 (Part 29)	—
22	Total alkalinity as calcium carbonate, mg/l, <i>Max</i>	200	600	IS 3025 (Part 23)	—
23	Total hardness (as CaCO ₃), mg/l, <i>Max</i>	200	600	IS 3025 (Part 21)	—
24	Zinc (as Zn), mg/l, <i>Max</i>	5	15	IS 3025 (Part 49)	—

NOTES

1 In case of dispute, the method indicated by '*' shall be the referee method.

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Parameters Concerning Toxic Substances

#	Characteristic	Requirements (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of	Remarks
1	Cadmium (as Cd), mg/l, Max	0.003	No relaxation	IS 3025 (Part 41)	—
2	Cyanide (as CN), mg/l, Max	0.05	No relaxation	IS 3025 (Part 27)	—
3	Lead (as Pb), mg/l, Max	0.01	No relaxation	IS 3025 (Part 47)	—
4	Mercury (as Hg), mg/l, Max	0.001	No relaxation	IS 3025 (Part 48)/ Mercury analyser	—
5	Molybdenum (as Mo), mg/l, Max	0.07	No relaxation	IS 3025 (Part 2)	—
6	Nickel (as Ni), mg/l, Max	0.02	No relaxation	IS 3025 (Part 54)	—
7	Pesticides, µg/l, Max	See Table 5	No relaxation	See Table 5	—
8	Polychlorinated biphenyls, mg/l, Max	0.000 5	No relaxation	ASTM 5175*	— or APHA 6630
9	Polynuclear aromatic hydrocarbons (as PAH), mg/l, Max	0.000 1	No relaxation	APHA 6440	—
10	Total arsenic (as As), mg/l, Max	0.01	0.05	IS 3025 (Part 37)	—
11	Total chromium (as Cr), mg/l, Max	0.05	No relaxation	IS 3025 (Part 52)	—
	Trihalomethanes:				

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12	a) Bromoform, mg/l, <i>Max</i>	0.1	No relaxation	ASTM D 3973-85* or APHA 6232	—
13	b) Dibromochloromethane, mg/l, <i>Max</i>	0.1	No relaxation	ASTM D 3973-85* or APHA 6232	—
14	c) Bromodichloromethane, mg/l, <i>Max</i>	0.06	No relaxation	ASTM D 3973-85* or APHA 6232	—
15	d) Chloroform, mg/l, <i>Max</i>	0.2	No relaxation	ASTM D 3973-85* or APHA 6232	—

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Parameters Concerning Radioactive Substances

#	Characteristic	Requirements (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of 14194	Remarks
1	Radioactive materials:				
	a) Alpha emitters Bq/l, <i>Max</i>	0.1	No relaxation	Part 2	—
	b) Beta emitters Bq/l, <i>Max</i>	1.0	No relaxation	Part 1	—

NOTES

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Pesticide Residues Limits and Test Method

#	Pesticide	Limit, µg/l	Method of Test, Ref to Part of	
			USEPA	AOAC/ ISO
1	Alachlor	20	525.2, 507	—
2	Atrazine	2	525.2, 8141 A	—
3	Aldrin/ Dieldrin	0.03	508	—
4	Alpha HCH	0.01	508	—
5	Beta HCH	0.04	508	—
6	Butachlor	125	525.2, 8141 A	—
7	Chlorpyriphos	30	525.2, 8141 A	—
8	Delta HCH	0.04	508	—
9	2,4- Dichlorophenoxyacetic acid	30	515.1	—
10	DDT (<i>o, p</i> and <i>p, p</i> – Isomers of DDT, DDE and DDD)	1	508	AOAC 990.06
11	Endosulfan (alpha, beta, and sulphate)	0.4	508	AOAC 990.06
12	Ethion	3	1657 A	—
13	Gamma — HCH (Lindane)	2	508	AOAC 990.06

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14	Isoproturon	9	532	—
15	Malathion	190	8141 A	—
16	Methyl parathion	0.3	8141 A	ISO 10695
17	Monocrotophos	1	8141 A	—
18	Phorate	2	8141 A	—

NOTE — Test methods are for guidance and reference for testing laboratory. In case of two methods, USEPA method shall be the reference method

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