

Recommended levels of physical, organoleptic and chemical determinants in drinking water as published in SANS 241:2006 (South African National Standard. Drinking Water). Based on Table 2 of SANS 241:2006, Edition 6.1.

Determinant	Impact ^a	Unit	Recommended Limit ^b	Maximum Limit ^c	Period ^d
Physical and organoleptic requirements					
Colour	A	mg/L Pt	< 20	20 – 50	No limit
Conductivity at 25 °C	A	mS/m	< 150	150 – 370	7 years
Dissolved solids	A	mg/L	< 1 000	1 000 – 2 400	7 years
Odour	A	TON	< 5	5 – 10	No limit
pH value at 25 °C	A/O	pH units	5,0 – 9,5	4,0 – 10,0	No limit
Taste	A	FTN	< 5	5 – 10	No limit
Turbidity	A/O/H	NTU	< 1	1 – 5	No limit
Chemical requirements — macro-determinant					
Ammonia as N	O	mg/L	< 1,0	1,0 – 2,0	No limit
Calcium as Ca	A/O	mg/L	< 150	150 – 300	7 years
Chloride as Cl ⁻	A	mg/L	< 200	200 – 600	7 years
Fluoride as F ⁻	H	mg/L	< 1,0	1,0 – 1,5	1 year
Magnesium as Mg	A/H	mg/L	< 70	70 – 100	7 years
(Nitrate and nitrite) as N	H	mg/L	< 10	10 – 20	7 years
Potassium as K	O/H	mg/L	< 50	50 – 100	7 years
Sodium as Na	A/H	mg/L	< 200	200 – 400	7 years
Sulfate as SO ₄ ²⁻	H	mg/L	< 400	400 – 600	7 years
Zinc as Zn	A/H	mg/L	< 5,0	5,0 – 10	1 year
Chemical requirements — micro-determinant					
Aluminium as Al	H	µg/L	< 300	300 – 500	1 year
Antimony as Sb	H	µg/L	< 10	10 – 50	1 year
Arsenic as As	H	µg/L	< 10	10 – 50	1 year
Cadmium as Cd	H	µg/L	< 5	5 – 10	6 months
Total Chromium as Cr	H	µg/L	< 100	100 – 500	3 months
Cobalt as Co	H	µg/L	< 500	500 – 1 000	1 year
Copper as Cu	H	µg/L	< 1 000	1 000 – 2 000	1 year
Cyanide (recoverable) as CN ⁻	H	µg/L	< 50	50 – 70	1 week
Iron as Fe	A/O	µg/L	< 200	200 – 2 000	7 years
Lead as Pb	H	µg/L	< 20	20 – 50	3 months
Manganese as Mn	A	µg/L	< 100	100 – 1 000	7 years

Mercury as Hg	H	µg/L	< 1	1 – 5	3 months
Nickel as Ni	H	µg/L	< 150	150 – 350	1 year
Selenium as Se	H	µg/L	< 20	20 – 50	1 year
Vanadium as V	H	µg/L	< 200	200 – 500	1 year
Chemical requirements — organic determinant					
Dissolved organic carbon as C	A/H	mg/L	< 10	10 – 20	3 months
Total trihalomethanes	H	µg/L	< 200	200 – 300	10 years
Phenols	A/H	µg/L	< 10	10 – 70	No limit

a. Health (H), Operational (O), Aesthetic (A)

b. Recommended operational limit of the determinant

c. If a determinant exceeds the recommended limit, it must be below the maximum limit for less than the recommended period

d. Maximum period for which a determinant may exceed the recommended limit. This is based on the consumption of 2 L of water per day by a person of mass 70 kg over a period of 70 years