

Drop Count Titration Test Kits

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Drop count titration test kits provide a straightforward and cost effective method for measuring a wide range of parameters, including chlorine, chloride, dissolved oxygen, carbon dioxide, sulfite, nitrogen, and formaldehyde. In these methods, drops of titrant are added to a measured sample until a distinct color change indicates the endpoint.

These kits are suitable for both field and laboratory use and include all required reagents, apparatus, and clear, step by step instructions. The drop count titration approach delivers reliable results while avoiding the complexity and potential sources of error associated with more advanced instrumentation.

Typical accuracy is ± 1 drop for titrations requiring up to 20 drops, and approximately $\pm 5\%$ for titrations requiring more than 20 drops. As a result, drop count titration kits provide sufficient accuracy for most routine testing applications, particularly in water treatment and process monitoring.

Drop count titration kits are portable, require minimal equipment, and enable rapid testing.

Key advantages:

- Complete kits that allow testing to be performed within minutes, even by less experienced users
- Adequate accuracy for routine control and monitoring applications
- Portable
- Low cost and minimal components
- Test kits include all reagents and apparatus needed
- No calibration required!



Examples of drop count titration test kits

Usage tips:

- Hold the dropper vertically to ensure consistent drop size
- Swirl the sample container after each drop
- When the initial color change is observed, add one additional drop; if no further color change occurs, do not include that final drop in the result calculation

Drop Count Titration Kits

Item Number	Description	Parameter	Range
222301	Acidity Test Kit, Model AC-6	Acidity	5-100 mg/L CaCO ₃ 20-400 mg/L CaCO ₃
2314500	Alkalinity Test Kit, Model AL-TA	Alkalinity - (P) & Total (MO) As CaCO ₃	23-495 gpg 385-8500 mg/L
2444300	Alkalinity Test Kit, Model AL-AP, gpg*	Alkalinity	0-8 gpg 1-20 gpg
2444301	Alkalinity Test Kit, Model AL-AP	Alkalinity - (P) & Total (MO)	5-100 mg/L CaCO ₃ 20-400 mg/L CaCO ₃
2308100	Ascorbic Acid Test Kit, Model ASC-1	Ascorbic Acid	10-200 mg/l
143601	Carbon Dioxide Test Kit, Model CA-23	Carbon Dioxide	1.25-25 mg/L CO ₂ 2-40 mg/L CO ₂ 5-100 mg/L CO ₂
144001	Chloride Low Range Test Kit, Model 8-P	Chloride (Silver Nitrate)	5-100 mg/L Cl ⁻ 20-400 mg/L Cl ⁻
208601	Chloride Test Kit, Model CD-51	Chloride (Silver Nitrate)	500-10000 mg/L 5000-100000 mg/L Cl ⁻
2444400	Total Chlorine Test Kit, Model CN-21P	Total Chlorine	10-200mg/L Cl ₂
225401	Chlorine (Total) Test Kit, Model CN-65	Total Chlorine	0.2-4.0 mg/L 1-20 mg/L
222702	Chromium Test Kit, Model CH-14	Hexavalent Chromium, High Range	5-100 mg/L 50-1000 mg/L Cr ⁶⁺
146900	Dissolved Oxygen Test Kit	Dissolved Oxygen (DO)	0.2-4.0mg/L 1-20mg/L O ₂
2183100	Formaldehyde Test Kit, Model FM-1	Formaldehyde	0.05-1% 0.5-10%
145201	Total Hardness Test Kit, Model HA-71A	Hardness, total - As CaCO ₃	1-20mg/L&17-342mg/L CaCO ₃
145300	Total Hardness Test Kit, Model 5-B	Hardness, total - As CaCO ₃	1-30 gpg
145401	Total Hardness Test Kit, Model 5-EP mg-L	Hardness, total - As CaCO ₃	20-400 mg/L CaCO ₃
145400	Total Hardness Test Kit, Model 5-EP	Hardness, Total - As CaCO ₃	1-30 gpg CaCO ₃
145700	Hardness (Total & Calcium) Test Kit, Model HA-4P	Hardness, Total & Calcium - As CaCO ₃	17.1-342 mg/L CaCO ₃
145701	Hardness (Total & Calcium) Test Kit, Model HA-4P mg/L	Hardness, total & Calcium - (Magnesium by difference)	20-400 mg/L CaCO ₃
2291700	Hydrogen Peroxide Test Kit, Model HYP-1	Hydrogen Peroxide	0.2-2.0 mg/L 1-10 mg/L
2687200	Hypochlorite Test Kit, Model CN-HR	Hypochlorite (as Cl ₂)	50-150 g/L Cl ₂ (5-15%)
148002	Sulfite Test Kit, Model SU-5 (iodometric)	Sulfite	1-20 mg/L 10-200 mg/L SO ₃ 2 ⁻

*mg/L unless otherwise noted | ppb = µg/L, ppm = mg/L. | gpg = grains per gallon | 1 gpg = 17.1 mg/L or 17.1 ppm.

**1 gpg = 17.1 mg/L (MO) = Methyl Orange

Hardness Unit Conversion Chart

The table below shows the factors to convert hardness from one unit of measure to another. For example, to convert mg/L CaCO₃ to German parts/100,000 CaO, multiply the value in mg/L x 0.056. To convert from mg/L to grains per gallon, multiply by 17.1. (Note: meq/L = N x 1000)

Units of Measure	mg/L CaCO ₃	British gr/gal (Imperial) CaCO ₃	American gr/gal (US) CaCO ₃	French parts/ 100,000 CaCO ₃	German parts/ 100,000 CaO	meq/L	g/L CaO
L CaCO ₃	0.07	0.058	0.058	0.1	0.056	0.02	5.6x10 ⁻⁴
English gr/gal CaCO ₃	1.0	0.83	0.83	1.43	0.83	0.286	8.0x10 ⁻³
US gr/gal CaCO ₃	1.2	1.0	1.0	1.72	0.96	0.343	9.66x10 ⁻³
French p/100,000 CaCO ₃	0.7	0.58	0.58	1.0	0.56	0.2	5.6x10 ⁻³
German p/100,000 CaO	1.25	1.04	1.04	1.79	1.0	0.358	1x10 ⁻²
meq/L	3.5	2.9	2.9	5.0	2.8	1.0	2.8x10 ⁻²
g/L CaO	125.0	104.2	104.2	179.0	100.0	35.8	1.0
lb/ft ³ CaCO ₃	1123.0	935.0	935.0	1610.0	900.0	321.0	9.0
L CaCO ₃	0.07	0.058	0.058	0.1	0.056	0.02	5.6x10 ⁻⁴
English gr/gal CaCO ₃	1.0	0.83	0.83	1.43	0.83	0.286	8.0x10 ⁻³
US gr/gal CaCO ₃	1.2	1.0	1.0	1.72	0.96	0.343	9.66x10 ⁻³

Not all test kits are available in all regions. Please contact your salesperson or local office for availability.



World Headquarters: Loveland, Colorado USA | hach.com

United States 800-227-4224 fax: 970-669-2932 email: orders@hach.com
Outside United States 970-669-3050 fax: 970-461-3939 email: intl@hach.com

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DOC062.53.20390.May26