

Drop Test Kits *New innovation of water testing onboard*

For use in a range of Water Systems

Delivering simplicity and affordability through innovation.

The UCA range of drop test kits are designed for use on a wide range of water systems where routine site monitoring is required.

This new line of drop test kit used onboard made to test the cooling water and boiler water, this line made as replacement of tablet way as drop way are easier, more economical and very simple to use unlike tablet.

The UCA kit should be used to monitor water conditions to ensure that the systems are under control and do not exhibit signs of corrosion, scaling or microbiological fouling. Many are designed to allow the simple determination of inhibitor or biocide levels.

Each test kit has all the components required to carry out site analysis. All are supplied in a robust carry case with all the equipment and reagents necessary to perform between 100 and 200 tests.

If you require more than one parameter in a kit we can accommodate this request and multiples can be included.

Replacement reagents and components are available which make this kit a lasting addition to any water treatment professional.

Simple to use

Our test instruction booklet is in full colour and has easy to follow step by step instructions making on site analysis simple.

The reagent labels and test booklet are printed on waterproof and chemical resistant paper making them more durable.



Drop Test Kit Parameters

p Alkalinity test kit.
M Alkalinity test kit .
Chloride test kit
Nitrite test kit .
Hardness test kit .
Sulphite test kit .

Each kit includes :

Plastic case with pre-cut foam
Waterproof test booklet
65ml test bottle
10ml or 20ml syringe
Test reagents in 65ml bottles

Call us for more information.

ALKALINITY DROP TEST KIT (p)

Determination of Alkalinity (p). Range 5 - 2400 as CaCO_3

Step 1.

Take sample according to anticipated range.
(See reference data)

Step 2.

Add 5 drops of PA1

If sample does not turn pink report p Alk as NIL.

Step 3.

Count drops of TA3 or PA2/TA2 until sample turns Clear.

Step 4.

Record number of drops.

HEALTH & SAFETY

Refer to H & P phrases on individual bottles.
Wear protective gloves and safety goggles when performing any tests using corrosive, harmful or irritant reagents.
Do not ingest.

EQUIPMENT & REAGENTS

EDT018	65ml Plastic Test Bottle
EDT167	10ml Syringe
SDT001	PA1 Phenolphthalein Indicator
SDT006	TA3 Alkalinity LR Titrant
SDT005	PA2/TA2 Alkalinity HR Titrant

REFERENCE DATA

Titrant Used - TA3		
Anticipated Range	Sample Size (ml)	SS Factor
5 - 150	40	5
100 - 300	20	10
200 - 600	10	20

Titrant Used - PA2/TA2		
Anticipated Range	Sample Size (ml)	SS Factor
20 - 600	40	20
400 - 1200	20	40
800 - 2400	10	80

IF	OH	CO_3	HCO_3
P = 0	0	0	M
P < M/2	0	2P	M - 2P
P = M/2	0	2P	0
P > M/2	2P - M	2(M - P)	0
P = M	M	0	0

Alkalinity Relationships

The separate contributions to "alkalinity" of bicarbonate, carbonate, and free caustic can be estimated using the above relationships.

Step 5.

To calculate your results multiply the number of drops added to sample by the Sample Size (SS) factor.

$$\text{p Alkalinity as } (\text{CaCO}_3) \text{ (mg/l) ppm} = \text{Number of Drops} \times \text{SS factor}$$

CHLORIDE DROP TEST KIT

Determination of Chloride. Range 0 - 12000 ppm

Step 1.

Take sample according to anticipated range.
(See reference data)

Step 2.

Add 5 drops of BC1/CC1 per 20ml and swirl bottle.

Step 3.

Add drops of CC2 or BC2 one drop at a time.

Step 4.

Count drops to change from yellow to Orange/Brown.

HEALTH & SAFETY

Refer to H & P phrases on individual bottles.
Wear protective gloves and safety goggles when performing any tests using corrosive, harmful or irritant reagents.
Do not ingest.

EQUIPMENT & REAGENTS

EDT018	65ml Plastic Test Bottle
EDT167	10ml Syringe
SDT023	BC1/CC1 Chloride Indicator
SDT024	CC2 Chloride LR Titrant
SDT026	BC2 Chloride HR Titrant

REFERENCE DATA

Titrant Used - BC2		
Anticipated Range	Sample Size (ml)	SS Factor
100 - 400	40	10
200 - 600	20	20
400 - 1000	10	40
800 - 3000	5 (*)	80
4000 - 12000	1 (*)	400

Titrant Used - CC2		
Anticipated Range	Sample Size (ml)	SS Factor
20 - 75	40	2.5
50 - 150	20	5.0
100 - 300	10	10
200 - 500	5 (*)	20

Notes:

If with the addition of 2 drops of PA1, the sample turns pink add drops of P3 solution until the pink colour is removed, then proceed with test.

If you wish to express the result as Sodium Chloride multiply the Cl result by 1.6.

(*) Dilute samples of less than 10ml to approximately 10 - 20ml with distilled or deionised (chloride free) water.

Step 5.

To calculate your results multiply the number of drops added to sample by the Sample Size (SS) factor.

$$\text{Chloride as Cl (ppm)} = \text{Number of drops of CC2 or BC2 used} \times \text{SS factor}$$

NITRITE HR DROP TEST KIT

Determination of Nitrite as NaNO_2 . Range 25 - 3000 ppm

Step 1.

Take sample according to anticipated range.
(See reference data)



Step 2.

Add **5** drops of **N1 HR** and swirl to mix.



Step 3.

Add drops of **N2 HR** while swirling, count number of drops.



Step 4.

Ensure **Pink** end point remains for at least 30 seconds.

HEALTH & SAFETY

Refer to H & P phrases on individual bottles.
Wear protective gloves and safety goggles when performing any tests using corrosive, harmful or irritant reagents.
Do not ingest.

EQUIPMENT & REAGENTS

EDT018	65ml Plastic Test Bottle
EDT167	10ml Syringe
SDT177	N1 HR Buffer
SDT178	N2 HR Titrant

REFERENCE DATA

Anticipated Range	Sample Size (ml)	SS Factor
25 - 750	40	25
500 - 1500	20	50
1000 - 3000	10	100
2000 - 3000	5	200

Notes:

- 1) If the system is using blended inhibitors, system cleaners or chemical biocides, better results may be achieved with the traditional N1 & N2 test.
- 2) Sample volumes below 20 ml should be made up to 20 ml with De-ionised or Nitrite free water.

Step 5.

To calculate your results multiply the number of drops added to sample by the Sample Size (SS) factor.

$$\text{Concentration of Nitrite (NaNO}_2\text{) (mg/l) ppm} = \text{Number of Drops} \times \text{SS Factor}$$

SULPHITE DROP TEST KIT

Determination of Sulphite as Na_2SO_3 Range 0 - 300 ppm (mg/L)

Step 1.

Take **20ml** of **cooled** sample.
(See Note 6)



Step 2.

Add 1 x 0.5ml scoop of **S1** and mix gently.



Step 3.

Add drops of **S2** or **S2HR** one drop at a time with gentle mixing.



Step 4.

Count number of drops to obtain a **Blue Colour**.

HEALTH & SAFETY

Refer to H & P phrases on individual bottles.
Wear protective gloves and safety goggles when performing any tests using corrosive, harmful or irritant reagents.
Do not ingest.

EQUIPMENT & REAGENTS

EDT018	65ml Plastic Test Bottle
EDT167	10ml Syringe
SDT092	S1 Sulphite Indicator
SDT093	S2 Sulphite LR Titrant
SDT387	S2 HR Sulphite HR Titrant *
(* Optional - order separately if required)	

REFERENCE DATA

Notes:

- 1) Ignore any undissolved material.
- 2) Boiler water samples must be collected and cooled with minimum contact with the air.
- 3) A sample cooler is strongly recommended for safety and efficiency.
- 4) Do not leave the sample standing, test immediately.
- 5) If using S2 HR the factor is 10.
- 6) When taking a 100ml sample each drop of S2 is equal to 1.0 mg/L Sodium Sulphite.
- 7) To express as SO_3 , multiply the result by 0.64.

Step 5.

To calculate your results multiply the number of drops of S2 added to the sample by 5.

$$\text{Sodium Sulphite Na}_2\text{SO}_3 \text{ (mg/l) (ppm)} = \text{Drops of S2} \times 5$$