



42259 Electrochlorination System TEST KIT

Instructions

Spare Parts & Reagents

Part no.	Description
43168	Chlorine HR tablets, pack of 100
43169	Sulphamic acid KP146 / Tannin Indicator TN1, 40g
43170	Iodine indicator KP148, 10g
43171	Chlorine HR titrant KS150, 65ml.
43172	Hardness Yes/No Tablets KT168, pack of 100
200-116	80ml sample container with lid.
200-117	30ml graduated container with screw cap
200-118	Stirring/crushing rod, plastic
200-119	Hydrometer for diluted brine specific gravity
200-120	Brineometer 0-100%
200-121	Hydrometer jar, glass
200-122	Syringe, 20ml

Chlorine Concentration Test

1. Using the syringe transfer a portion of your sample to the test jar. Use the chart below to determine the correct sample volume for the test range. The sample should then be diluted with de-ionised, distilled or tap water to make up the total sample volume to 20ml.



Expected Range %	Sample Size (mls)	Titrant	*Factor
0.2 – 0.6	10	KS150	0.02
*0.4 – 1.2	5	KS150	0.04
1.0 – 3.0	2	KS150	0.1
2.0 – 6.0	1	KS150	0.2
4.0 – 12.0	0.5	KS150	0.4
10.0 – 15.0	0.2	KS150	1.0

*Normal range for electrochlorination systems

2. Add two heaped spatula measures of KP146/TN1 (sulphamic acid) and swirl the test jar to dissolve. It is not necessary for all of the reagent to dissolve.



3. Add two KT26 (chlorine HR) tablets and crush to dissolve. If chlorine is present the sample will turn from colourless to yellow/brown.



4. Dropper Test : Holding the dropper bottle exactly vertically upside down, add KS150 titrant one drop at a time, mixing between each addition. Count how many drops are required for the colour to turn pale yellow – do not titrate until completely colourless. Note the number of drops added as Result A.



5. Add a small quantity of KP148 (iodine indicator) until the sample turns blue/black.



6. Continue to add drops of KS150 (chlorine HR titrant). Count the number of drops required for the sample to turn from blue/black to colourless; Result B.



$$\text{Chlorine \%} = (\text{Result A} + \text{Result B}) \times F^*$$

Softener Yes/No Test

1. Using the small graduated plastic tube, take a 10ml sample of water from the Softened Water Sample Valve at the electrochlorinator.
2. Add one KT168 indicator tablet and swirl to dissolve. A green solution indicates the water is softened. If the sample turns red the softener is not functioning properly. Prompt action should be taken to resolve any water softener problems to avoid scaling of the electrochlorinator cell.
3. This test should be performed at least weekly.

Brine Concentration

To confirm that the EASYCHLORGEN brine tank is producing saturated brine, use the hydrometer marked 0-100% and carefully lower it into the brine calibration column, located at the base of the EASYCHLORGEN cabinet below the water meter. 3. When settled the Hydrometer should sit so the surface of the solution is level with the 100% marker, indicating that the brine solution is fully saturated. If the result is lower than 100%, check that the salt level in the saturator tank is adequate and that the water level control is functioning properly. If the salt saturator tank has only recently been filled with salt, the brine solution may take several hours to become fully saturated.



Diluted Brine Test

To test the brine dilution strength being delivered to the electrolyser cell is correct, take a sample from the brine sample tap so that the glass hydrometer jar is almost full. Select the larger hydrometer marked 1.0-1.1 SG. 2. Carefully lower the hydrometer into the jar. Measure the reading when settled. EASYCHLORGEN systems are designed to operate at a target SG of 1.018 measured at 20°C (acceptable range 1.016 – 1.02).

