

Lovibond® Water Testing

Tintometer® Group



Spas and Hot Tubs Fact Sheet – HSG282 and Water Testing

What is HSG282?

Health and Safety Guideline 282 (HSG282) came into effect in early 2017. The main aim for the introduction was to reduce the risk of Legionella outbreaks associated with spas and hot tubs. The guideline covers all spas and hot tubs in a commercial setting i.e. all those hired out and used by more than one party. It does not include spas used in a purely domestic situation.

Section 5 of the guideline focusses on water testing with the following emphasis:

- Reducing the risk of Legionella and microbiological contamination
- Emphasizing that this is the operator's responsibility
- Ensuring testing is frequent and planned (at least three times a day)
- Highlighting that results should be recorded
- Stressing that there should be a written action plan if required

What needs to be tested?

The guideline focusses on three main parameters; Disinfectant, pH and Total Dissolved Solids (TDS).

Disinfectant: It is recommended that either Chlorine or Bromine is used and this should be tested frequently. It also states that there should be an action plan if levels are too high or too low. Levels should be in the following ranges:

Chlorine (free): 3 – 5mg/l
Bromine: 4 – 6mg/l

pH: pH is a measurement of the acid or alkaline value of the spa or hot tub and is important both for user comfort and the effectiveness of the disinfectant. The guideline recommends the following levels should be aimed for and there should be an action plan if readings are too high / low:

pH: 7.0-7.6

TDS: Total Dissolved Solids is the amount of solids dissolved in the water. All water in a spa or hot tub has a level of TDS; this will be increased mainly by the addition of salts from, for example, human perspiration. As the volume of water in a spa is normally fairly low, the level of TDS can change quickly if the tub has heavy use. If TDS is allowed to increase too much, the water may develop a salty taste and the performance of the disinfectant may be compromised. TDS should be measured frequently and the recommended levels are as follows:

TDS: 1500mg/l (or 1000mg/l above the reading of the supply water)

If high levels are recorded, these need to be decreased by dilution (i.e. adding fresh water). TDS is carried out using a pen type meter. To measure the TDS, the pen is simply submerged in the spa water, allowed to stabilise and a digital readout is then shown on the display – both easy and accurate. The meter will also give you a temperature reading:



Part Number: 278110-HSG

The new Lovibond® Professional Pool and Spa Photometer Kit enables the operator to measure all the tests mentioned in HSG282 from one case. Contained within the kit is an MD 100 Professional Photometer for the measurement of chlorine, bromine and pH and an SD 80 Total Dissolved Solids (TDS) Pen. Importantly the kit measures both chlorine and bromine so, if different disinfectants are used across your site, the same kit will cover both.



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Lovibond® Water Analysis : Tintometer® Group

01980 664800 : water.sales@tintometer.com : www.lovibondwater.com