

Titration Kit

Art. 09809-01-0000

Brief description

For determining the concentration of water-miscible metalworking fluids through titration using the alkaline reserve.

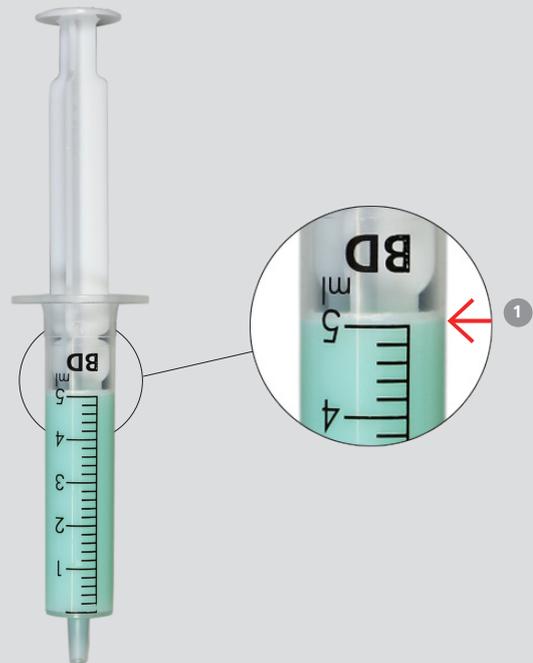
Contents of the test kit

10 ml pH indicator, 100 ml titration solution, 1x 1 ml titration syringe, 1x 5 ml syringe, 1x measuring cup with 5 ml ring mark, 1x plastic spatula.
The solutions contained in the test kit are enough for around 40 tests (based on an average concentration of 5% and a product-specific factor of 2).

Instructions for use

1. Fill the 5 ml syringe with exactly 5 ml of the metalworking fluid sample and transfer it to the measuring cup. **Important:** The lower edge of the plunger must align with the 5 ml mark on the syringe scale (see Fig. 1). The plunger should be drawn up slowly to avoid air bubbles. Air bubbles in the syringe can falsify the result.
2. Add a drop of the pH indicator to the sample in the measuring cup and swirl to mix. The sample must turn blue.
3. Draw exactly 1 ml of titration solution into the 1 ml titration syringe.
4. Slowly add the titration solution to the sample drop-by-drop while swirling continuously until the blue color disappears. We recommend holding the titration syringe in one hand and the measuring cup in the other (see Figure 2) and adding the titration solution drop-by-drop while gently swirling the test tube. Alternatively, you can stir it with the rod.
5. As soon as the blue color has completely disappeared, check the volume used in the titration syringe (lower edge of the plunger).
6. If the first fill of the syringe is not enough to cause the color change, the syringe is refilled with titration solution and titrated until the color changes (see points 3 and 4).

Important: The additional syringe content used must be taken into account.

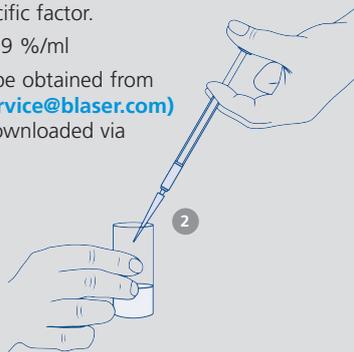


Calculating the concentration

Each product has a product-specific factor.

Example: B-Cool 755-03 → 2.79 %/ml

The product-specific factor can be obtained from Customer Service (customer-service@blaser.com) at Blaser Swisslube or directly downloaded via the link blaser.com/titration.



Calculation formula

The amount of titration solution used (in ml), multiplied by the product-specific factor, yields the concentration.

Example: Titration solution used: 1.8 ml
 $\text{Concentration} = 1.8 \text{ ml} \times 2.79 \text{ \%/ml} = 5.0 \text{ [\%]}$
 (2 titration syringes had to be filled in this example).

Disposal

The used samples with the titration solution must be disposed of properly in the same way as the used metalworking fluids. Disposal must be made according to official regulations or according to the relevant Safety Data Sheet for the metalworking fluid.

