

NANOCOLOR® TOC 30 (REF 985075) and TOC 300 (REF 985078)

The determination of TOC is a high-precision measurement. Accurate working (e.g. pipetting) as well as proper storage of test kits and standards are required for save and reproducible results.

Working steps	Important notes
Pipetting	
<p>1 </p>	<ul style="list-style-type: none"> Pipette 5.0 mL (TOC 30)/0.5 mL (TOC 300) of homogenized sample into cuvette "1" Deviations are possible without homogenization
Removal of TIC	
<p>2 </p>	<ul style="list-style-type: none"> Insert opened cuvettes into TIC-Ex, start and remove the TIC for 5 min Blow out fluid residues from tips into cuvettes after removal process Deviations are possible without blowing out residues
<p>3 </p>	<ul style="list-style-type: none"> Close cuvette and mix Deviations are possible without mixing
Connecting – Perform steps 4–8 quickly, no parallel processing of different samples	
<p>4 </p>	<ul style="list-style-type: none"> Mark cuvette "2" with included label Transfer 4.0 mL pre-treated solution from cuvette "1" into cuvette "2" Labeling avoids mixing up
<p>5 </p>	<ul style="list-style-type: none"> Close cuvette, shake vigorously for 10 s. Decomposition reagent must be dissolved completely Complete dissolution of decomposition reagent gives optimal digestion results
<p>6 </p>	<ul style="list-style-type: none"> Open indicator cuvette "3", immediately close it straight and hand-tight with threaded coupling Pay attention to orientation of the threaded coupling Cuvette must not remain open for too long as indicator reacts sensitively to CO₂ from air
<p>7 </p>	<ul style="list-style-type: none"> Open cuvette "2", immediately close it with the prepared indicator cuvette/threaded coupling-combination straight and hand-tight Wetting of the membrane with digestion solution leads to deviations When contact of glass and sealing is established, a further quarter turn is enough. This way, the combination is sealed and stays straight
<p>8 </p>	<ul style="list-style-type: none"> Pierce venting needle completely through the rubber septum of cuvette "3" Needles that are not pierced completely through the rubber septum can clog and change measuring results

Working steps	Important notes
Digestion and cooling	
<p>9 </p>	<ul style="list-style-type: none"> Heat cuvette combination for 1 h at 100 °C in a heating block Cuvette "2" has to be inserted in the heating block
<p>10 </p>	<ul style="list-style-type: none"> Remove cuvette combination from the heating block after digestion process and immediately pull out venting needle
<p>11 </p>	<ul style="list-style-type: none"> Let cuvette combination cool down to room temperature for 1 h Adherence of the cooling time is important to ensure that an equilibrium of the indicator is established
Measuring	
<p>12 </p>	<ul style="list-style-type: none"> Put the round, gray label on the rubber septum Label seals the rubber septum reliably during the measurement and storage in box for disposal
<p>13 </p>	<ul style="list-style-type: none"> Clean NULL solution with cleaning cloth from the outside
<p>14 </p>	<ul style="list-style-type: none"> Insert the cuvette into photometer Use respective cuvette slot cover for photometer
<p>15 </p>	<ul style="list-style-type: none"> Clean indicator cuvette "3" with cleaning cloth from the outside
<p>16 </p>	<ul style="list-style-type: none"> Invert cuvette combination Invert the cuvettes immediately before measurement Repeated turning can lead to deviations
<p>17 </p>	<ul style="list-style-type: none"> Insert cuvette combination with cuvette "3" turned down into photometer Use respective cuvette slot cover for photometer