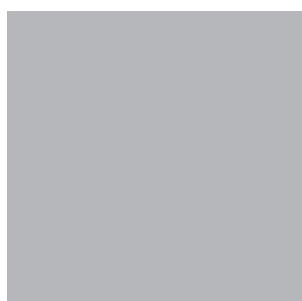
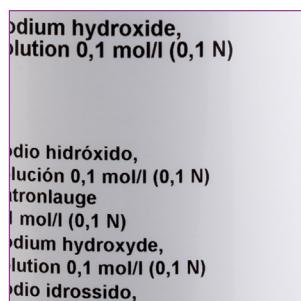
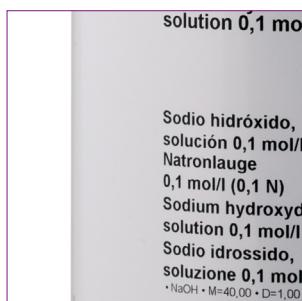


# Scharlau

*The wise choice*



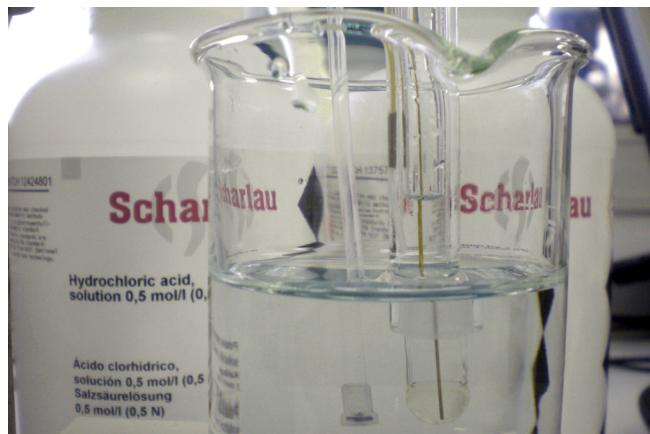
Titrasure® standards and volumetric solutions  
*...for guaranteed results*

**Titration is a high-precision analytical method that requires titrants of accurately known concentration. Scharlau's volumetric solutions are manufactured with utmost precision, allowing us to guarantee a factor of 1.000.**

## Potentiometric titration

Our Quality Control laboratory uses automatic titrators and potentiometric methods to detect the titration endpoint. Potentiometric detection is much more reproducible than traditional colorimetric visualisation and eliminates the errors associated with the visual perception of each individual. The use of potentiometric methods allows to achieve a precision of 1/1.000th in the factor, something not possible with traditional titration methods that use colour indicators.

The relative error due to resolution of a 25 ml glass burette is 20 times higher than the error of an automatic titrator. An example of how this can influence the titration result is shown below.



### Titrasure® 0,1 M sodium hydroxide titration with potassium biphthalate

The titration curve shows how pH varies as small volumes of sodium hydroxide are added to a potassium biphthalate solution. The pH ranges over which three of the most widely used colour indicators turn are also shown. The titration endpoint is reached after 22,035 ml NaOH have been added.

*What would happen if the same titration were done with a visual indicator and a 25ml glass burette?*

In this case, we can only measure accurately the volume of one drop of NaOH (0,05 ml). Figure 2 shows that the error associated with the burette would lead to a considerable difference in the titration endpoint.

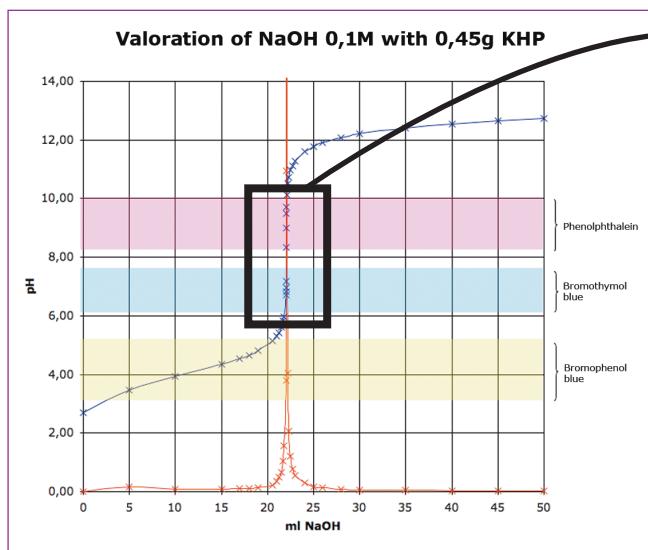


Figure 1

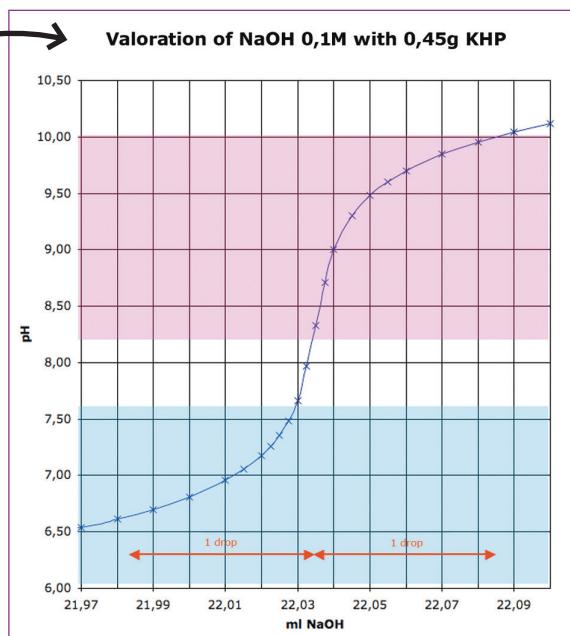


Figure 2

## Traceability

All Scharlau solutions are traceable to NIST (National Institute of Standards and Technology) primary reference materials to ensure accurate concentrations.



## Titre

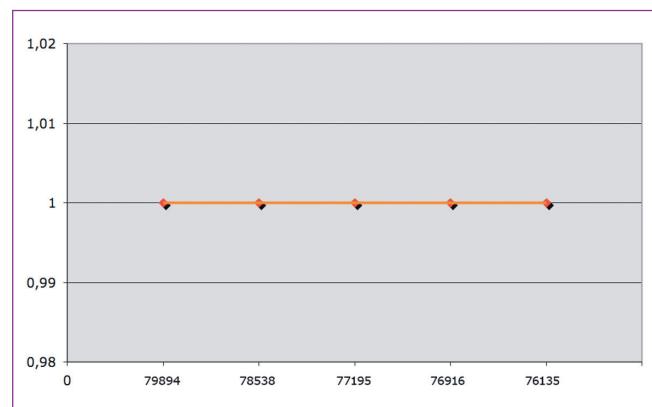
The titre or factor of a volumetric solution is the ratio between the molar concentration obtained ( $M(x)$ ) and the molar concentration expected ( $M_e(x)$ ).

$$t = M(x) / M_e(x)$$

This value is used as a correction titre and should be close to 1. Our solutions are manufactured with a titre of 1.000. Because the titre is important for the results of titrations, solution titre should be checked regularly.

## Accuracy

To manufacture solutions of accurate concentration, we use modern reactors that allow thorough solution mixing and optimal concentration adjustment to obtain a factor of 1.000.



Factors for 5 consecutive lots of 0,1M hydrochloric acid, Ref. AC0746



*All solutions  
are precise and reliable  
for guaranteed quality*

## Complete certificate of analysis

Volumetric solutions are used as reference materials to calculate the concentration, and it is important for the certificate of analysis to list all data characterizing the solution.

- 1. Solution name**
- 2. Batch number**
- 3. Test date**
- 4. Expiry date**
- 5. Titre for current lot**
- 6. Traceability**
- 7. Uncertainty**
- 8. Analytical method**
- 9. Storage and use**
- 10. Composition**

<b>CERTIFICATE OF ANALYSIS</b>	
<b>1</b>	Product: Sodium hydroxide, solution 0,1 mol/l (0,1 N) SO0443
<b>2</b>	Batch: 13829601 Test date: 24/09/2012 Shelf life: 9/2015
<b>3</b>	Analysis factor: 1,000 uncertainty ± 0,001
<b>4</b>	Specifications: 0,999 - 1,001
<b>5</b>	Batch value: 1,000
<b>6</b>	Traceability: This solution was checked using a Scharlau's potassium hydrogen phthalate volumetric standard. This Scharlau's volumetric standard is traceable to Standard Reference Material from NIST SRM 84L potassium hydrogen phthalate
<b>7</b>	Uncertainty: It characterises the dispersion of the values that could be attributed to the measurand. The limits of the uncertainty are given at a confidence level of 95% (k=2).
<b>8</b>	Measurement: The batch value is determined by means of potentiometric method (alkalimetric) at 20°C. The equipments involved in the analysis of this solution are validated periodically. Batch value certified at the time of measurement.
<b>9</b>	Storage and use: For volumetric titration. If the product is stored and unopened, this solution is stable for 3 years from the date of manufacturing. Keep tightly closed at room temperature. Avoid exposure to light and moisture. We suggest shaking the bottle before use in order to homogenize the content. The titre should be checked periodically by the user.
This certificate does not release the user from their control upon receipt of the goods You can get a copy of any of our COA from our web site: <a href="http://www.scharlab.com">www.scharlab.com</a>	
A. Torres Laboratory Manager 	
page 1 of 1	

## Uncertainty

Uncertainty characterises the dispersion of results as a consequence of concentration measurement. Our volumetric solutions have a confidence interval of ±0,1% with a level of confidence of 95% (k=2).

## Expiry date

All Scharlau products have the expiry date printed on the label and it is also indicated on the certificate of analysis. Ready-to-use volumetric solutions have a shelf life of 3 years, except those with a lower concentration, which have a shelf life of 2 years.

↓  
**Copies of all certificates  
are available at  
[www.scharlab.com](http://www.scharlab.com)**



### Convenient, easy-to-use containers

#### HDPE bottle

The most convenient container for volumetric solutions is a 1-litre bottle, as it can be directly used in the automatic titrator. We have improved the design of our HDPE bottle to make it stronger and more stable. The new bottle fits perfectly into the titrator support and does not move, not even when empty. In addition, raised titration marks allow the user to accurately estimate the amount of liquid remaining in the bottle.



#### Kubitainer 10 l

For high-volume consumption, we recommend our 10-litre Kubitainer. This container consists of a flexible polyethylene bag inside a cardboard box. The liquid is removed from the container through a tap, with the flexible PE container gradually folding as it empties, thus preventing air from entering. This is extremely important to maintain the quality of some solutions that experience a loss of titre when in contact with air. Kubitainer is an environmentally friendly container, since the outer cardboard box is recyclable and PE is a low-volume, incinerable waste.



### Tailor-made solutions

A flexible production system allows us to offer tailor-made solutions to our customers. We can prepare your solutions so you can avoid wasting time in an unnecessary laboratory task. Over 50 years of experience in reagent manufacture are your assurance of quality.

## Ready-to-use solutions

### Aqueous solutions

Description	Art. No.*	Description	Art. No.*	Description	Art. No.*	
<b>Acid-base</b>						
Acetic acid, sol. 0,1 mol/l (0,1 N)	AC03641000	Sodium hydroxide, sol. 0,01 mol/l (0,01 N)	SO04391000	Potassium permanganate, sol. 0,2 mol/l (1 N)	PO03351000	
Acetic acid, sol. 1 mol/l (1 N)	AC03651000	SO0439005P	Potassium permanganate, sol. 0,02 mol/l (0,1 N)	PO03361000		
Hydrochloric acid, sol. 0,01 mol/l (0,01 N)	AC07571000	SO0439010C	Potassium iodate, sol. 0,0013 mol/l (1/128 N)	PO04021000		
Hydrochloric acid, sol. 0,05 mol/l (0,05 N)	AC07541000	Sodium hydroxide, sol. 0,02 mol/l (0,02 N)	SO04480500	Sodium lauryl sulfate, sol. 0,004 mol/l	SO04581000	
Hydrochloric acid, sol. 0,1 mol/l (0,1 N)	AC07461000	SO04481000	Sodium metaarsenite, sol. 0,05 mol/l (0,1 N)	SO01001000		
	AC0746005P	Sodium hydroxide, sol. 1/49 mol/l (1/49 N)	SO04650500	Sodium nitrate, sol. 1 mol/l	SO05051000	
	AC0746010C	SO04651000	Sodium thiosulfate, sol. 0,002 mol/l (0,002 N)	SO07341000		
Hydrochloric acid, sol. 0,125 mol/l (0,125 N)	AC07531000	Sodium hydroxide, sol. 0,025 mol/l (0,025 N)	SO04471000	Sodium thiosulfate, sol. 0,01 mol/l (0,01 N)	SO07331000	
	AC0753005P	Sodium hydroxide, sol. 0,05 mol/l (0,05 N)	SO04531000	Sodium thiosulfate, sol. 0,02 mol/l (0,02 N)	SO07401000	
	AC0753010C	Sodium hydroxide, sol. 0,1 mol/l (0,1 N)	SO04431000	Sodium thiosulfate, sol. 0,0394 mol/l (0,0394 N), acc. to ASTM D1510	SO07391000	
Hydrochloric acid, sol. 0,2 mol/l (0,2 N)	AC07401000	SO0443005P		SO0739005P	SO0739025P	
Hydrochloric acid, sol. 0,25 mol/l (0,25 N)	AC07551000	Sodium hydroxide, sol. 0,2 mol/l (0,2 N)	SO04451000	Sodium thiosulfate, sol. 0,05 mol/l (0,05 N)	SO07371000	
	AC0755005P	Sodium hydroxide, sol. 1/4,9 mol/l (1/4,9 N)	SO04640500	SO0737005P	SO0737010C	
	AC0755010C	SO04641000	Sodium thiosulfate, sol. 0,1 mol/l (0,1 N)	SO07311000	SO0731005P	
Hydrochloric acid, sol. 0,31mol/l (0,31 N)	AC07691000	Sodium hydroxide, sol. 0,25 mol/l (0,25 N)	SO04441000	SO0731010C	SO07310200	
	AC0769005P	Sodium hydroxide, sol. 0,3546 mol/l (0,3546 N)	SO04490500	Sodium thiosulfate, sol. 0,282 mol/l (0,282 N)	SO07321000	
Hydrochloric acid, sol. 0,5 mol/l (0,5 N)	AC07451000	SO04491000	SO0732005P	SO0732010C	SO07291000	
	AC0745005P	Sodium hydroxide, sol. 0,4 mol/l (0,4 N)	SO04521000	Sodium thiosulfate, sol. 0,5 mol/l (0,5 N)	SO07291000	
	AC0745010C	Sodium hydroxide, sol. 0,5 mol/l (0,5 N)	SO04421000	Sodium thiosulfate, sol. 1 mol/l (1 N)	SO07301000	
Hydrochloric acid, sol. 1 mol/l (1 N)	AC07441000	SO0442005P	SO04411000	SO0730005P	SO0730010C	
	AC0744005P	Sodium hydroxide, sol. 1 mol/l (1 N)	SO0441005P	Hanus sol., IBr sol. 0,1 mol/l (0,2 N)	RE00201000	
	AC0744010C	SO0441010C	Sodium hydroxide, sol. 1,66 mol/l (1,66 N)	SO04301000	Wijs sol., ICl sol. 0,1 mol/l (0,2 N)	RE00701000
Hydrochloric acid, sol. 1,4 mol/l (1,4 N)	AC07511000	SO04291000	Sodium hydroxide, sol. 1/9 mol/l (1/9 N)	SO0429005P	Iodine, sol. 0,01 mol/l (0,02 N)	Y000250500
	AC0751005P	SO0429010C	Sodium hydroxide, sol. 2 mol/l (2 N)	SO04401000	Iodine, sol. 0,02365 mol/l (0,0473 N)	Y000231000
	AC0751010C	SO0440005P	Sodium hydroxide, sol. 5 mol/l (5 N)	SO04551000	Iodine, sol. 0,05 mol/l (0,1 N)	Y000232500
Hydrochloric acid, sol. 2 mol/l (2 N)	AC07481000	SO0440010C	Sodium hydroxide, sol. 6 mol/l (6 N)	SO04510000	Iodine, sol. 0,5 mol/l (1 N)	Y000241000
Hydrochloric acid, sol. 3 mol/l (3 N)	AC07381000	Sodium hydroxide, sol. 10 mol/l (10 N)	SO0461005P	<b>Precipitation</b>		
Hydrochloric acid, sol. 5 mol/l (5 N)	AC07491000	<b>Complexometry</b>			Ammonium thiocyanate, sol. 0,1 mol/l (0,1 N)	AM04201000
Hydrochloric acid, sol. 6 mol/l (6 N)	AC07521000	SO04301000	Ammonium thiocyanate, sol. 1 mol/l (1 N)	AM04211000		
Nitric acid, sol. 0,1 mol/l (0,1 N)	AC16111000	SO04291000	Mercury(II) nitrate, sol. 0,01 mol/l (0,02 N)	ME01971000		
Nitric acid, sol. 0,5 mol/l (0,5 N)	AC16151000	SO0429005P	Silver nitrate, sol. 0,01 mol/l (0,01 N)	PL00581000		
Nitric acid, sol. 1 mol/l (1 N)	AC16101000	SO0429010C	Silver nitrate, sol. 0,02 mol/l (0,02 N)	PL00561000		
Nitric acid, sol. 2 mol/l (2 N)	AC16121000	Sodium hydroxide, sol. 2 mol/l (2 N)	SO04401000	Silver nitrate, sol. 0,05 mol/l (0,05 N)	PL00591000	
ortho-Phosphoric acid, sol. 0,1 mol/l	AC11051000	SO0440005P	Silver nitrate, sol. 0,1 mol/l (0,1 N)	PL00550500		
ortho-Phosphoric acid, sol. 1 mol/l	AC11061000	SO0440010C		PL00551000	PL0055010C	
Sulfuric acid, sol. 0,01 mol/l (0,02 N)	AC20831000	Sodium hydroxide, sol. 5 mol/l (5 N)	SO04551000	Silver nitrate, sol. 1 mol/l (1 N)	PL00570500	
Sulfuric acid, sol. 0,025 mol/l (0,05 N)	AC20761000	Sodium hydroxide, sol. 6 mol/l (6 N)	SO04510000	PL00571000	PL00571000	
Sulfuric acid, sol. 0,05 mol/l (0,1 N)	AC20821000	Sodium hydroxide, sol. 10 mol/l (10 N)	SO0461005P	Potassium thiocyanate, sol. 0,1 mol/l (0,1 N)	PO03751000	
Sulfuric acid, sol. 0,1 mol/l (0,2 N)	AC20871000	<b>Redox</b>			Sodium chloride, sol. 0,1 mol/l (0,1 N)	SO02291000
Sulfuric acid, sol. 0,125 mol/l (0,25 N)	AC20881000	SO04711000	Copper (II) sulfate, sol. 0,02 mol/l	CO001031000	Hyamine® 1622, sol. 0,004 mol/l	HY00011000
Sulfuric acid, sol. 0,1275 mol/l (0,255 N)	AC21061000	SO0471005P	Copper (II) sulfate, sol. 0,1 mol/l	CO01021000	(Hyamine is a trade mark of Rohm and Haas Company)	
	AC2106005P	AC097100C	Magnesium chloride, sol. 0,02 mol/l (0,02 N)	MA00381000		
	AC2106010C	AC09741000	Magnesium sulfate, sol. 0,02 mol/l	MA00871000		
Sulfuric acid, sol. 0,13 mol/l (0,26 N)	AC20841000	SO04721000	Magnesium sulfate, sol. 0,1 mol/l	MA00881000		
	AC2084005P	AC0972010C	Calcium chloride, sol. 1 mol/l	CA01951000		
	AC2084010C	AC0972010C	Zinc sulfate, sol. 0,05 mol/l	CI02301000		
Sulfuric acid, sol. 0,25 mol/l (0,5 N)	AC20811000	SO04731000	Zinc sulfate, sol. 0,1 mol/l	CI02311000		
Sulfuric acid, sol. 0,5 mol/l (1 N)	AC20801000	SO04741000	Copper (II) sulfate, sol. 0,02 mol/l	CO001031000		
	AC2080005P	SO0474005P	Copper (II) sulfate, sol. 0,1 mol/l	CO01021000		
	AC2080100C	SO0474010C	Magnesium chloride, sol. 0,1 mol/l (0,2 N)	MA00381000		
Sulfuric acid, sol. 1 mol/l (2 N)	AC20851000	SO04751000	Magnesium sulfate, sol. 0,01 mol/l	MA00871000		
Sulfuric acid, sol. 2,5 mol/l (5 N)	AC20861000	SO0475005P	Magnesium sulfate, sol. 0,1 mol/l	MA00881000		
Sulfuric acid, sol. 4 mol/l (8 N)	AC20751000	AC09751000	Lead (II) nitrate, sol. 0,05 mol/l	PL01451000		
Sulfuric acid, sol. 5 mol/l (10 N)	AC20891000	SO04750010C	<b>Redox</b>			
	AC2089010C	SO04761000	Perchloric acid, sol.	AC17651000		
Potassium hydroxide, sol. 0,1 mol/l (0,1 N)	PO02821000	SO0476005P	in acetic acid 0,1 mol/l (0,1 N)			
	PO0282005P	PO0282010C	Potassium hydroxide, sol. 0,1 mol/l (0,1 N)	PO02891000		
Potassium hydroxide, sol. 0,23 mol/l (0,23 N), for determ. of crude fibre, ac. to Weende	PO02831000	SO04771000	in 2-propanol			
	PO0283005P	PO0283010C	Potassium hydroxide, ethanolic sol. 0,1 mol/l	PO02841000		
Potassium hydroxide, sol. 0,5 mol/l (0,5 N)	PO02811000	SO0477005P	Tetrabutylammonium hydroxide, sol. 0,1 mol/l, in 2-propanol/methanol	TE01161000		
	PO0281005P	PO0281010C	Potassium hydroxide, ethanolic sol. 0,5 mol/l	PO02781000		
Potassium hydroxide, sol. 1 mol/l (1 N)	PO02800500	SO04770010C	Potassium hydroxide, sol. 0,1 mol/l (0,1 N)	PO0292010C		
Potassium hydroxide, sol. 2 mol/l (2 N)	PO02881000	SO04781000	in methanol			
Sodium acetate, sol. 1 mol/l	SO00341000	SO0478005P				
Sodium carbonate, sol. 0,05 mol/l (0,1 N)	SO00511000	SO04780010C				
Sodium carbonate, sol. 0,5 mol/l (1 N)	SO00501000	SO04791000				
	SO0050005P	SO0050010C				
<b>Redox</b>						
Oxalic acid, sol. 0,005 mol/l (0,01 N)	AC17251000	<b>Solutions in nonaqueous matrix</b>				
Oxalic acid, sol. 0,025 mol/l (0,05 N)	AC17241000	Oxalic acid, sol. 0,05 mol/l (0,05 N)	CE01011000			
Oxalic acid, sol. 0,05 mol/l (0,1 N)	AC17231000	Cerium(IV) sulfate, sol. 0,05 mol/l (0,05 N)	CE01021000			
Ammonium iron(III) sulfate, sol. 0,1 mol/l (0,1 N)	HI03171000	Cerium(IV) sulfate, sol. 0,1 mol/l (0,1 N)	CE01021000			
Bromide-bromate, sol. 0,05 mol/l (0,1 N), acc. to ASTM D5776-99	BR00701000	Potassium bromate, sol. 1/60 mol/l (0,1 N)	PO01651000			
		Potassium dichromate, sol. 0,04 mol/l, for COD determination	PO02331000			
Potassium dichromate, sol. 1/120 mol/l (0,05 N)	PO02181000	Potassium dichromate, sol. 1/24 mol/l (0,25 N)	PO02321000			
Potassium dichromate, sol. 1/6 mol/l (1 N)	PO02311000	Potassium dichromate, sol. 1/60 mol/l (0,1 N)	PO02301000			
Potassium hexacyanoferrate(III), sol. 0,1 mol/l (0,1 N)	PO02501000	Potassium hexacyanoferrate(III), sol. 0,1 mol/l (0,1 N)	PO02501000			

\*The last 4 digits of the article number indicate the package:

0500 ► 500 mL  
1000 ► 1 L  
0050 ► 5 L  
010C ► 10 L KUBITAINER

## Concentrated solutions in ampoules

Each ampoule contains the precise amount of concentrated solution required to prepare, by dilution, 1 litre of volumetric solution at the concentration indicated. However, the concentrate also allows solutions to be prepared at different concentrations by diluting in other volumes of water (e.g., one ampoule of HCl Ref. AC0742 can be used to obtain 1 litre of 0,1 M HCl or 500 ml of 0,2 M HCl).

Each box includes an extra label with the name and concentration of the product for labelling the solution container once it has been prepared.

To prepare the volumetric solution, place the ampoule tip on the mouth of a volumetric flask of the desired volume. Turn the plastic cap fitted into the top of the ampoule and break the plastic membrane. This system avoids the need to use glass rods, which can cause accidents when breaking. While holding the ampoule on top of the flask mouth, turn the bottom of the ampoule so that the liquid comes out. Then use distilled water to pick up any remaining liquid in the ampoule and allow it to fall into the volumetric flask. Dilute the flask to volume with water and shake.



Description	Art. No.
Ammonium thiocyanate, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	AM0418
Ethylenediaminetetraacetic acid, EDTA, disodium salt, concentrated solution to prepare 1 l of solution 0,01 mol/l (0,02 N)	AC0966
Ethylenediaminetetraacetic acid, EDTA, disodium salt, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,2 N)	AC0996
Hydrochloric acid, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	AC0742
Hydrochloric acid, concentrated solution to prepare 1 l of solution 0,5 mol/l (0,5 N)	AC0759
Hydrochloric acid, concentrated solution to prepare 1 l of solution 1 mol/l (1 N)	AC0743
Iodine, concentrated solution to prepare 1 l of solution 0,05 mol/l (0,1 N)	YO0022
Potassium dichromate, concentrated solution to prepare 1 l of solution 1/60 mol/l (0,1 N)	PO0221
Potassium hydroxide, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	PO0276
Potassium hydroxide, concentrated solution to prepare 1 l of solution 1 mol/l (1 N)	PO0277
Potassium permanganate, concentrated solution to prepare 1 l of solution 0,02 mol/l (0,1 N)	PO0333
Silver nitrate, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	PL0051
Sodium chloride, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	SO0231
Sodium hydroxide, concentrated solution to prepare 1 l of solution 0,01 mol/l (0,01 N)	SO0438
Sodium hydroxide, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	SO0427
Sodium hydroxide, concentrated solution to prepare 1 l of solution 0,5 mol/l (0,5 N)	SO0434
Sodium hydroxide, concentrated solution to prepare 1 l of solution 1 mol/l (1 N)	SO0428
Sodium thiosulfate, concentrated solution to prepare 1 l of solution 0,01mol/l (0,01 N)	SO0738
Sodium thiosulfate, concentrated solution to prepare 1 l of solution 0,1 mol/l (0,1 N)	SO0728
Sulfuric acid, concentrated solution to prepare 1 l of solution 0,05 mol/l (0,1 N)	AC2072
Sulfuric acid, concentrated solution to prepare 1 l of solution 0,5 mol/l (1 N)	AC2073

*The shelf life of concentrated solutions  
is usually 5 years*



## Titrasure®. Secondary reference standards for titration

The titre of volumetric solutions may vary over time, making periodic verification advisable, particularly in the case of extremely diluted solutions or solutions that are unstable due to their chemical composition.

Scharlau Titrasure®, our line of reference standards with exceptional purity and homogeneity, is the suitable option to verify of the factor of volumetric solutions.

Titrasure® standards are subject to comprehensive analytical testing to ensure assay and homogeneity. Each manufactured lot is traceable to NIST standards and the label of each container lists the actual lot assay. The standards are packaged in glass flasks and opaque cartons to protect them from light and maintain their quality for a longer time. As a result, Titrasure® helps ensure the reliability of your analytical results.

### Characteristics

- High purity ----->
- Accurately determined content ----->
- Lot assay printed on the label ----->
- Certificate of analysis with each unit ----->
- Glass container in opaque carton ----->
- Traceable to NIST ----->  
(National Institute of Standards and Technology)



### Benefits

- Prevents possible titration interference
- Decreases error associated with the method
- Permits rapid identification
- Offers quality assurance
- Prevents deterioration due to light
- Ensures traceability

Description	Art. No.	Capacity
Benzoic acid Titrasure®	AC05660080	80 g
Calcium carbonate Titrasure®	CA01850060	60 g
Potassium chloride Titrasure®	PO02070100	100 g
Potassium dichromate Titrasure®	PO02350100	100 g
Potassium hydrogen phthalate Titrasure®	PO01310100	100 g
Potassium iodate Titrasure®	PO04040100	100 g
Sodium chloride Titrasure®	SO02340100	100 g
di-Sodium oxalate Titrasure®	SO05310080	80 g
TRIS Titrasure®	TR04270080	80 g



### Quality

Our company has an integrated management system according to ISO 9001: 2008 and ISO 14001: 2004.

A copy of the certificate is available on our website.

### Availability

All our products are available from stock.

**www.scharlab.com**

You can access our online catalogue and get copies of COA, TDS and MSDS whenever you need.