## Acidity

561700110

```
0-7.5% H2SO4
```


## Material

| Reagents | Packaging Unit | Part Number |
| :--- | :--- | :--- |
| Acidity / Alkalinity P Indicator PA1 | 65 mL | 56L013565 |
| Acidity HR Titrant ACD2 | 65 mL | 56 L 040865 |

The following accessories are required.

| Accessories | Packaging Unit | Part Number |
| :--- | :--- | :--- |
| Syringe, plastic, 20 mL | 1 pc. | 56 A 006501 |
| Titration jar with cap, plastic, 60 mL | 1 pc. | 56 A 006701 |

## Application List

- Disinfection Control
- Food and Beverage


## Notes

1. Colours may vary depending on sample and test conditions.
2. The P refers to phenolphthalein the indicator originally used for titrating P Alkalinity.
3. The color change occurs at pH 8.3 .
4. Less hazardous alternatives are now used.
5. $1 \%=10,000 \mathrm{mg} / \mathrm{L}$
6. ${ }^{1}$ Samples of less than 20 ml should be diluted to approximately 20 mL with distilled/ deionised water.
7. To convert the result as $\mathrm{H}_{2} \mathrm{SO}_{4}$ to other acids, multiply the result in $\% \mathrm{w} / \mathrm{v}$ by the relevant factor below:

| Sulphamic Acid | 2.0 |
| :--- | :--- |
| Hydrochloric Acid | 0.8 |
| Citric Acid | 1.5 |
| Hydrofluoric Acid | 0.5 |
| Nitric Acid | 1.3 |
| Phosphoric Acid (Acidity to pH 8.3 ) | 1 |
| Phosphoric Acid (Acidity to pH 4.5 ) | 2 |

## Sampling

Select the sample volume from the table according to the expected measuring range and read off the factor to calculate the result.

| Expected Range | Titrant used | Sample Size | Factor |
| :--- | :--- | :--- | :--- |
| $0.10-0.375 \% \mathrm{w} / \mathrm{v}$ | Acidity HR Titrant <br> ACD2 | 40 mL | 0.0125 |
| $0.25-0.75 \% \mathrm{w} / \mathrm{v}$ | Acidity HR Titrant <br> ACD2 | 20 mL | 0.025 |
| $0.50-1.50 \% \mathrm{w} / \mathrm{v}$ | Acidity HR Titrant <br> ACD2 | $10 \mathrm{~mL}^{1}$ | 0.05 |
| $1.00-3.00 \% \mathrm{w} / \mathrm{v}$ | Acidity HR Titrant <br> ACD2 | $5 \mathrm{~mL}^{1}$ | 0.10 |
| $2.00-7.50 \% \mathrm{w} / \mathrm{v}$ | Acidity HR Titrant <br> ACD2 | $2 \mathrm{~mL}^{1}$ | 0.25 |



Attention!Select the appropriate sample volume according to the instructions in the chapter Sampling.

Attention! Record the number of drops that will be added.
Note: Make sure to swirl the jar after adding each drop!

Calculate test result: Acidity ( as $_{\mathbf{H}}^{\mathbf{2}} \mathbf{\mathbf { S O } _ { 4 }}$ ) \% w/v = Number of drops $\mathbf{x}$ factor (see table)

