



# The optimum cleaning process with deconex®

How do you make sure your cleaning process is working properly?

Titration method for all alkaline and acidic deconex® FPD-cleaning concentrates - easy to do and reliable!

## 1. Principle of acid-base titrations

The alkalinity or acidity of a cleaner is determined by neutralization with an acid or base of known concentration - the content is a measure of the activity of the cleaner.

## 2. Titration methods are now available for the following products:

### Alkaline deconex® cleaners

deconex® FPD 101

deconex® FPD 111

deconex® FPD 201

deconex® FPD 211

### Acidic deconex® cleaners

deconex® FPD 240

### 3. Equipment required

The instrumentation and reagents needed are listed in the method. Borer Chemie AG will be pleased to be of further assistance in any way. Tel. +41 32 686 56 00 or e-mail: office@borer.ch.

### 4. Performing a titration (e.g. with an alkaline cleaner)



1

Add 100 ml of the cleaner solution to a beaker



2

Add the magnetic stirring bar and 4 drops of indicator solution



3

Fill the burette with 0.1 N hydrochloric acid (up to the 0.0 ml mark)



4

Add hydrochloric acid dropwise to the stirred solution (i.e. titrate)



5

After the colour change, do not add any more hydrochloric acid



6

Read off the volume of hydrochloric acid added

**Example**

Volume used:	<b>6.60 ml</b>
Titration factor:	<b>3.29 ml/%</b>
Concentration:	<b><math>\frac{6.60 \text{ ml/l}}{3.29 \text{ ml/\%}} = 2.01\%</math></b>

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Calculate the concentration of the cleaner