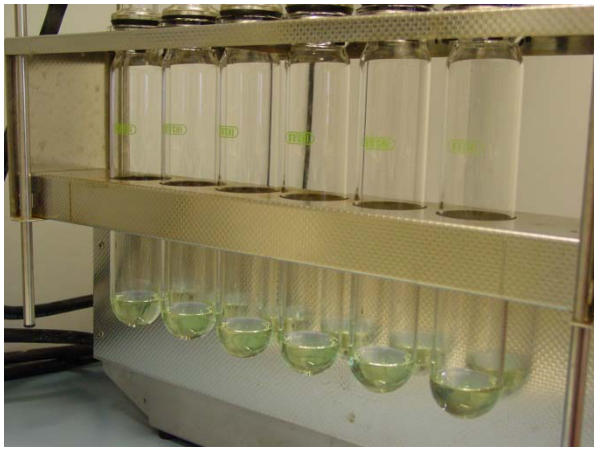
Kjeldahl- Digestion

Organically bound nitrogen

H_2SO_4/Cat

Digestion

$(NH_4)_2SO_4$

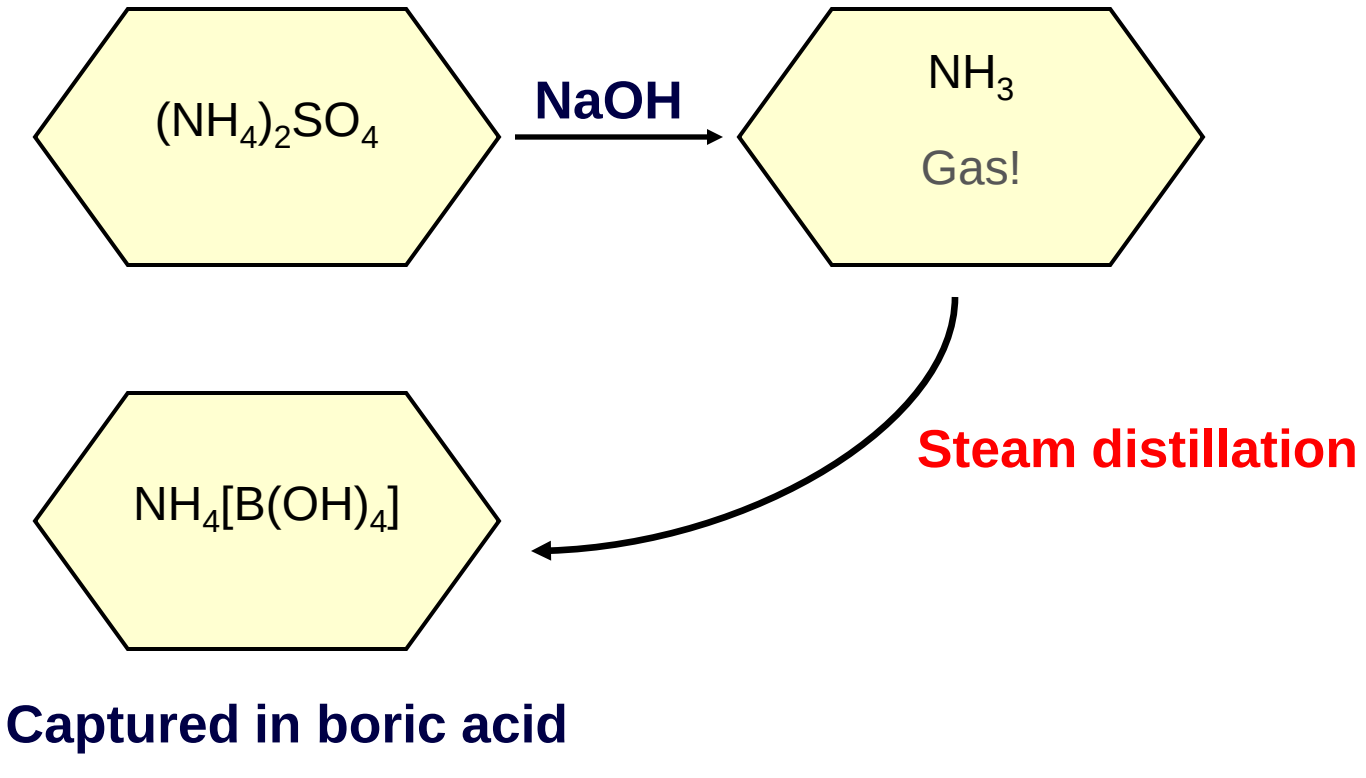


Digestion units - two different techniques

IR-Heating

Block heating

Steam Distillation



Captured in boric acid

Range of distillation units

K-350 K-355

new!

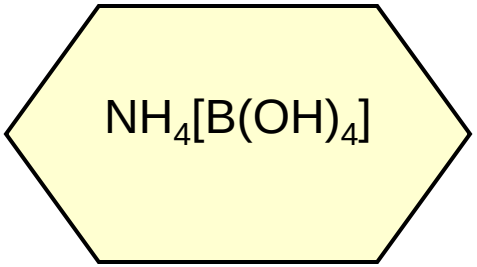
KjelFlex
K-360

KjelMaster
K-375

…. with Autosampler

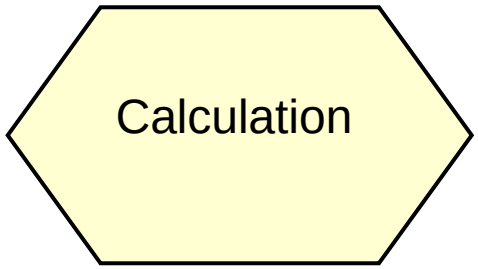
User interfaces

Titration

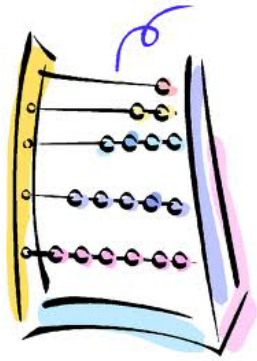


H_2SO_4 (or HCl)
titration solvent

Determination of ammonia by titration to pH=4.6
(pH-Elektrode or Sher-Indikator)



Calculation



$$\% P = \frac{(\text{ml sample} - \text{ml blank}) \times 1.4008 \times N \times F \times 100}{\text{sample weight}}$$

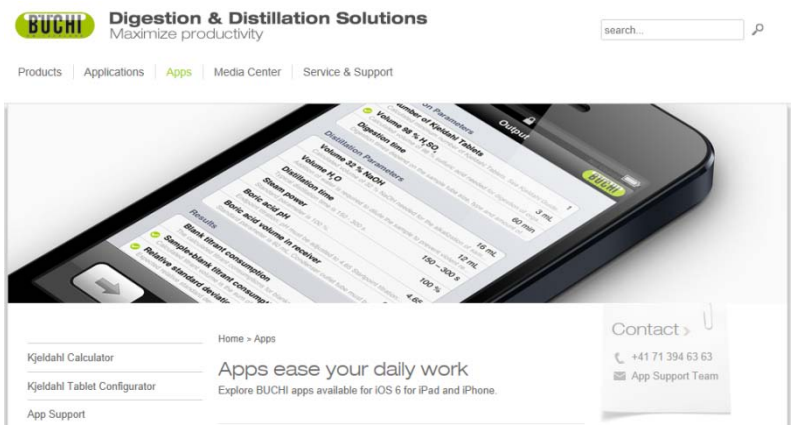
1.4008: 1 ml 0.1 N standard solution = 1.4008 mg N

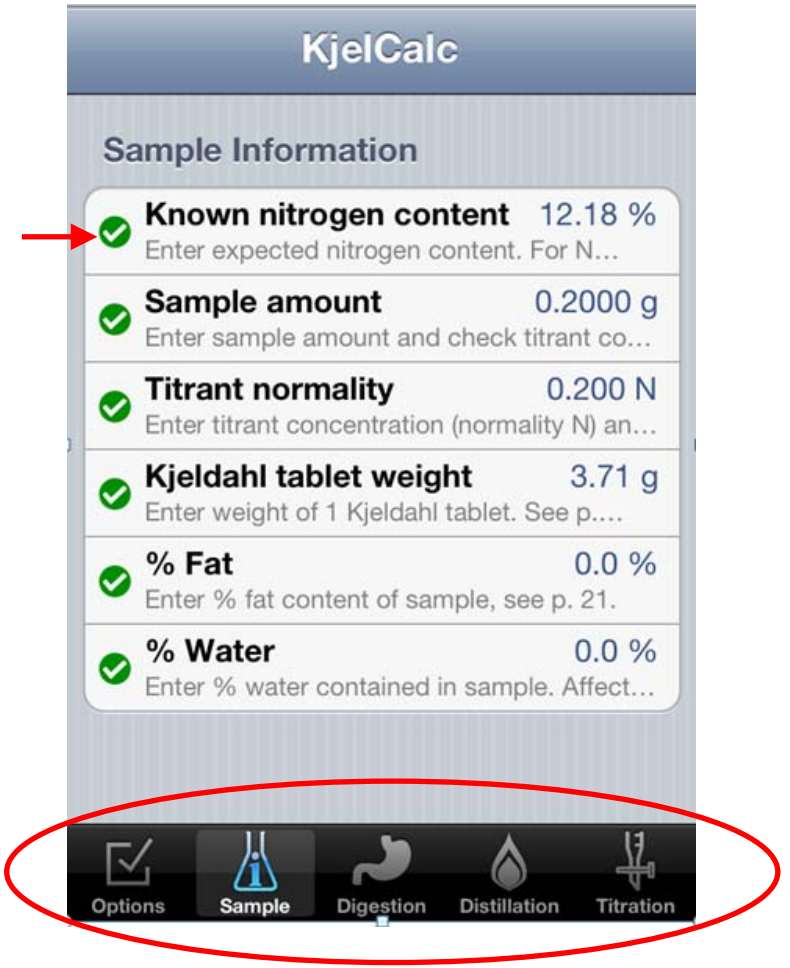
N: Normality of the titrant

F: Conversion factor N ⇨ Protein

- for most products 6.25
- dairy products 6.38
- nuts 5.4

KjelCalc app on www.buchi.com

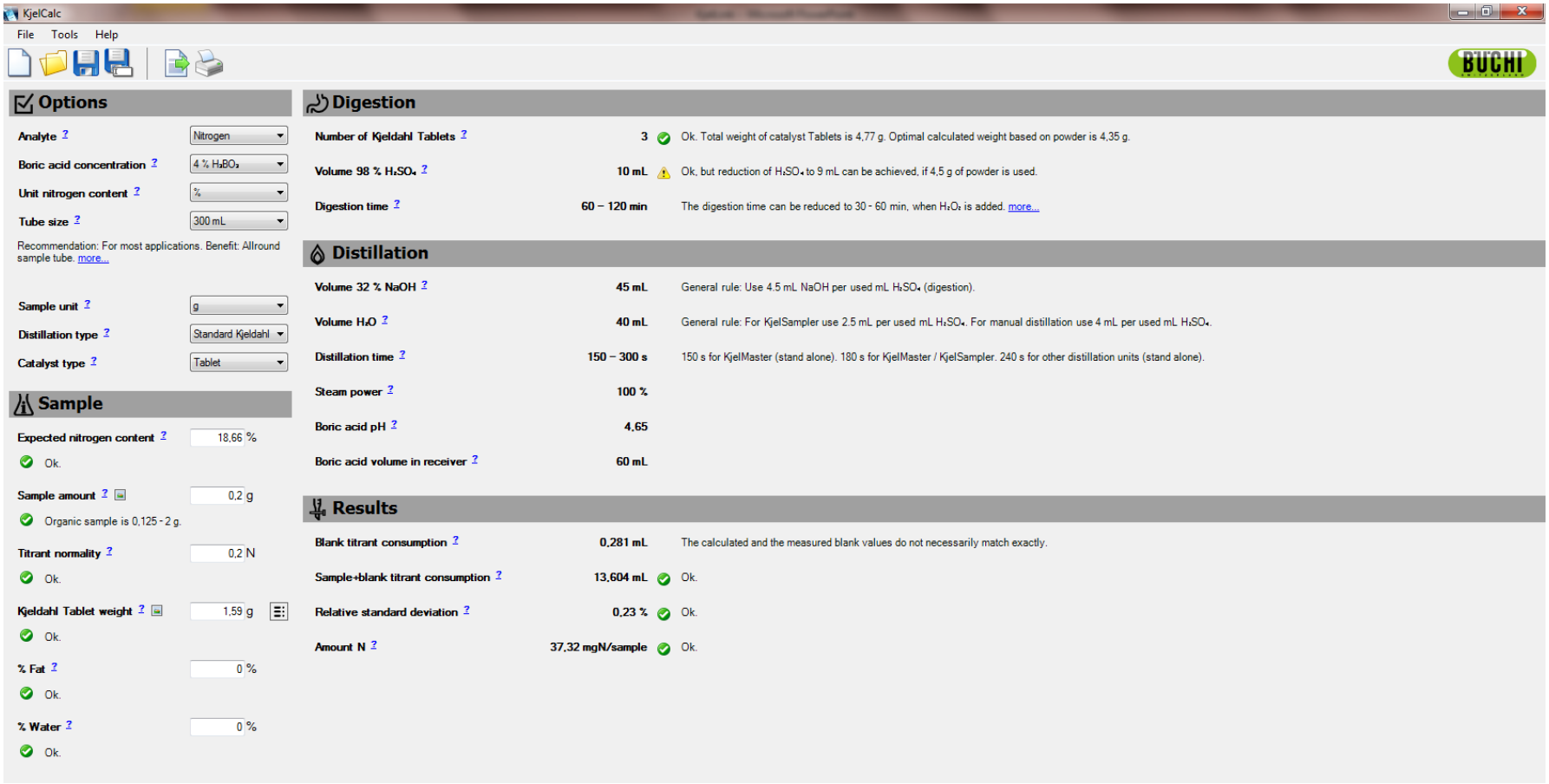




Optimize your Kjeldahl application:

- amount of sample
- amount of H_2SO_4
- amount of catalyst
- conc. of titrant solution
- etc.

KjelCalc PC Software



Sizes of Sample Tubes