

Kjeltec™ for Dairy

Automated reference methods for the dairy industry



ANALYTICS BEYOND MEASURE

Validate your FTIR and NIR results

For protein and non-protein nitrogen determination according to IDF/AOAC methods.

Features and benefits of Kjeltec 8100 & 8200

- Official procedures simplify validation
- Reduced reagent usage leads to significant savings
- Self adjusting cooling water saves water and reduces costs
- Built-in safety systems for user protection
- Bellows pumps for accurate dispensing of reagents

Features and benefits of Kjeltec 8400

- Officially approved colorimetric titration simplifies regulatory validation
- Optional 20 or 60 place sampler provides fully unattended operation
- Automatic cleaning of titration vessel
- Simple sample registration and LIMS connection with optional PC Software
- Ethernet connection minimizes communication problems with printers and balances

Sample type

Raw materials and finished products in dairy samples

Parameters

Nitrogen and protein

Technology

Kjeldahl

Approvals

Officially approved (IDF, AOAC, ISO) for simplified validation

Kjeltec 8100 for semi-automatic distillation

Kjeltec 8200 for fully automated distillation

Kjeltec 8400 for fully automated distillation, titration, and calculation

Performance Data

Analysis time:	3.5 minutes at 30 mg N
Distillation capacity:	~ 40 ml/min
Measuring range:	0.1 – 200 mg N
Reproducibility:	1% RSD (including the digestion step)
Recovery:	> 99.5% at nitrogen levels between 1 – 200 mg
Tube draining:	200 ml in less than 10 seconds
Burette resolution (Kjeltec 8400):	2.4 µl/step
Reagent pump volumes:	0 – 150 ml in steps of 10 ml

Agency	Approval	Application
AOAC	991.2	Nitrogen (Total) in milk
	991.21	Non-Protein Nitrogen in whole milk
	991.22	Protein Nitrogen control of milk
	930.29	Protein in dried milk powder
	920.109	Nitrogen (Total) in cream
	2001.14	Nitrogen (Total) in cheese
	930.33	Protein in ice cream and frozen desserts
	945.48	Total Nitrogen in evaporated milk
IDF	20-2	Nitrogen content in milk
	20-3	Nitrogen content in milk
	20-4	Non-Protein Nitrogen in milk
	20-5	Protein Nitrogen in milk
	173	N Solubility Index in dried milk protein products
ISO/EN	8968-2	Nitrogen content in milk
	8968-3	Nitrogen content in milk
	8968-4	Non-Protein Nitrogen content in milk
	8968-5	Protein-Nitrogen content in milk
	15323	N Solubility Index in dried milk protein products