

# Analytical solutions for beverages









Beer, coffee, tea, fruit juice, milk, wine, spirits, protein shakes, plant-based drinks, cocoa ...

STEAM DISTILLATION | KJELDAHL | DUMAS | HYDROLYSIS EXTRACTION | DIGESTION

# Specialist for beverages

From beer and tea to milk and plant-based drinks - the variety of beverages is huge. This calls for particularly flexible analytical systems. We offer various solutions for analysing beverages. We not only provide you with reliable products, but also expert consultation from our application specialists.

On our website www.gerhardt.de/en you will find detailed information about our analytical systems, also specifically for your industry.

And, of course, we would be happy to offer you a personal consultation - just get in touch: info@gerhardt.de.



Liqueurs Drinking meals Protein Shakes Beer Wine Tea Coffee Beverages Plant-based drinks Fruit juice Milk Spirits Cocoa

Powdered drinks

### N-Realyzer

Automatic N-determination according to Dumas



- Patent pending autosampler design
- Intuitive software
- Rapid and precise reference results
- Low and predictable operating costs
- + Numerous applications: Liquid, pasty, solid samples

### **Applications**

- → Nitrogen in milk
- → Non-protein nitrogen (NPN) in
- Nitrogen in protein shakes
- Protein in plant-based drinks (soya, oats, etc.)
- Protein in drinkable meals
- Nitrogen in beer
- Nitrogen in wine
- Nitrogen in coffee
- Nitrogen in cocoa
- and much more...

### HYDROTHERM | SOXTHERM

Hydrolysis and solid-liquid extraction



- Safe and automated sample prerparation and analysis
- + Sample weight up to 50ml for liquid and up to 20g for solid samples
- + Total fat analysis and preparation for fat spectrum

### **Applications**

- Total fat in milk Total fat in plant-
- based drinks Total fat in cocoa
- Extract content in coffee powder
- Total fat in liqueurs and much more...

# **VAPODEST**

Steam distillation



- + Rapid and automated
- Glass variety
- + Resource-saving

### **Applications**

- Vicinal diketones in beer
- Volatile acids in wine
- Sorbic acid in wine
- Sorbic acid in milk
- Essential oil in powdered drinks and fruit juice
- Alcohol in beverages
- Phenols in wine
- Phenols in beer
- Cyanide in spirits
- and much more...

# KJELDATHERM | VAPODEST

Acid digestion and steam distillation



+ Glass variety from 100 ml - 1200 ml

+ Traceability on various user levels

Rapid and automated

Soft start for distillation

- **Applications**
- Protein in milk
- Non-protein nitrogen (NPN) in
- Nitrogen in protein shakes
- Protein in plant-based drinks (soya, oats, etc.)
- Protein in drinkable meals
- Nitrogen in beer
- Nitrogen in wine
- Nitrogen in coffee
- Nitrogen in cocoa
- and much more...

### **FIBRETHERM**

analysis

Fibre extraction of crude fibre, ADF and NDF



- + Rapid and automated Parallel analysis of up to 12 samples
- Optimal extraction and filtration conditions due to FibreBag technology
- Automated addition of amylase (optional)

### **Applications**

- Crude fibre in tea
- Crude fibre in coffee
- Crude fibre in cocoa

- to the optimised Monier-Williams method
- and much more...
  - + Resource-saving

## VAPODEST 550 | TURBOTHERM TT SO2 Special applications



Automated alternatives

Glass variety



### **Applications**

- SO<sub>2</sub> in wine
- SO<sub>2</sub> in spirits
- SO<sub>2</sub> in beer / malt
- SO<sub>2</sub> in fruit juice
- and much more...

### MEETING HIGH DEMANDS ON ANALYTICS

Strict regulations and requirements from national and international norms and guidelines place high demands on analytics. C. Gerhardt's analytical systems cover a wide range of analytical possibilities, here are only a few examples:

Parameter	Matrix	Gerhardt apparatus
Nitrogen	Beer/ Wine	N-Realyzer/ KJELDATHERM/ VAPODEST
Nitrogen/non-protein nitrogen (NPN)/protein	Milk	N-Realyzer/ KJELDATHERM/ VAPODEST
Fat	Milk/ Cocoa	HYDROTHERM/ SOXTHERM
Crude Fibre	Tea	FIBRETHERM
Alcohol	Beer/ Wine	VAPODEST
Volatile acids	Wine	VAPODEST
Phenols	Beer	VAPODEST
Sulphur dioxide (SO <sub>2</sub> )	Beverages	VAPODEST 550 / TURBOTHERM TT SO₂

### APPLICATION SERVICE

Our laboratory staff is regularly trained and is always available for specific questions. If desired, we can optimise your applications or create an application specifically for you.

- + On-site service
- + Evaluation of your samples in our application laboratory
- Applicative Support (Webinars / Trainings / Online-Support)
- Consultation / Installation and Training
- Aftersales Service / Customer Service

### STRONG PARTNER

We are global leaders in the automation of reference analysis.

We stand for the development, production and global distribution of highly efficient, precise and reliable analytical systems.

Our specialties are automatic systems for

- Nitrogen analysis according to Kjeldahl
- Nitrogen analysis according to Dumas
- Determination of fat content (hydrolysis and extraction)
- Analysis of plant fibres (crude fibre, ADF, NDF)

Have you heard of our webinars?







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