



Solutions for Food

Wet Chemistry Analyses for Producers of Cereals, Snacks and other Food products

Crude Protein

OPSIS LiquidLINE has solutions for determination of Kjeldahl (TKN) protein following standard methods.

The samples are digested with sulphuric acid to convert nitrogen into ammonium sulphate. The samples are further distilled by steam distillation followed by titration.

Examples: Protein in cereals, sauces, pulses, jams and ready made food

Our Solution

- The KjelROC Digestor Advanced motor lift makes the digestion efficient and saves valuable operator time.
- OPSIS LiquidLINE Kjeldahl catalyst tablets and glass tubes ensure stable and reliable results.
- KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation saving time and costs.

Standards

ISO 1871:2009, ISO 20483:2006
ICC standard No. 105/2
AACC 46-13
AOAC 945.18B

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Total Fat

OPSIS LiquidLINE provides instruments to determine Total Fat according to standard methods.

The sample is hydrolysed and thereafter extracted in hot solvents. Calculation of total fat content follows after the extract has been dried to a constant weight.

Examples: Fat in cereals, cereal products, potato chips and ready made food

Our Solution

- The HydROC hydrolysis unit offers a unique filter technology that saves time and reduces the risk of errors when moving samples between hydrolysis and extraction.
- The SoxROC extraction unit with batch handling and full automation facilitates the extraction.

Standards

ISO/FDIS 11085
AOAC 996.01

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Crude Fat

OPSIS LiquidLINE provides instruments to determine Crude Fat with Hot Solvent extraction.

The sample is prepared and thereafter extracted in hot solvents. Calculation of fat content follows after the extract has been dried to a constant weight.

Examples: Fat in cereals, cereal products, potato chips and ready made food

Our Solution

- The SoxROC extraction unit with batch handling and full automation facilitates the extraction.
- The instrument provides significant time savings versus cold extraction and a recovery of over 90% of used solvents.

Standards

ISO/FDIS 11085

Application Notes

LA1002, Appl. Guide Solvent Extraction
LA1004 Extraction of fat in Potato chips
Further Notes on request

Total SO₂

SO₂ is used as preservative in the food industry but levels need to be controlled in order to produce safe food. OPSIS LiquidLINE has solutions for determination of Total SO₂ with steam distillation, following standard methods. Total sulphur dioxide is liberated by acidic steam distillation and is fixed and oxidized by hydrogen peroxide. The sulphuric acid formed is determined by separate titration, using third party instruments.

Examples: Total SO₂ in dried apricot, shrimps, celery, jams, syrups, sausages and burgers

Our Solution

- OPSIS LiquidLINE glass tubes ensure stable and reliable results.
- KjelROC Distillation unit with programming capabilities makes distillation easy. A special adaption kit for SO₂ determination can be ordered.

Standards

AOAC 962.16
AOAC 990.28

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Crude Fiber

OPIS LiquidLINE has instruments to determine Crude Fiber (CF) according to the Weende reference method. Examples: Crude fiber in vegetables and food products.

Our Solution

- The FiberROC Auto and FiberROC Advanced units manages the different steps in the method. Addition of solution, boiling and rinsing is done automatically. Every step is monitored and the operator will be notified when ready.
- The FiberROC Manual unit facilitates manual determination of Crude Fiber, providing an efficient and safe environment.
- Our solutions provides significant time and cost savings compared to the manual method.

Standards

Weende method for Crude Fiber

Application Notes

Notes on request

Detergent Fiber

OPIS LiquidLINE provides solutions to determine Acid Detergent (ADF), Neutral Detergent (ADF) and Acid Lignin Fiber (ADL) according to the Van Soest method. Examples: Detergent Fiber in vegetables and food products using plant material.

Our Solution

- The FiberROC Auto and FiberROC Advanced units manages the different steps in the method. Addition of solution, boiling and rinsing is done automatically. Every step is monitored and the operator will be notified when ready.
- FiberROC provides a High throughput, Low operating costs and an Unified solution with LabConnect software.

Standards

Van Soest method for Acid Detergent (ADF), Neutral Detergent (ADF) and Acid Lignin Fiber (ADL).

Application Notes

Notes on request

OPIS LIQUIDLINE - INNOVATIVE WET CHEMISTRY

OPIS AB, founded in 1985 in Sweden, took the concept of measuring gases with light and developed it into a commercially viable product. In 2013, we took another step and moved our innovative technology into Wet Chemistry and Liquids.

- AN APPLICATION LABORATORY READY TO ASSIST
- CUSTOMIZED TRAINING AND SUPPORT FROM SWEDEN
- THE LATEST IN MAINTENANCE
- A COMPLETE PORTFOLIO



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