Solutions for Agricultural

Wet Chemistry Analyses for Farms and Producers of Corn, Wheat, Rice, Plants, Syrups and similar 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 grain, oats, barley, wheat, sugars, syrups, straw, plants and forage. Protein in cottonseed, cotton-seed meals, ground cake or pellets from cottonseed.

Our Solution
— The KjelROC Digestor Advanced motor lift makes the digestion efficient and saves valuable operator time.
— KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation.

Standards
ISO 5983-2, AOCS Aa 5-91
AOAC 920.87, AOAC 920.176
AOAC 945.23, AOAC 978.04
AOAC 979.09, AOAC 2001.11
Analytica-EBC 3.3.1

Application Notes
LA1000 Application Guide Kjeldahl
LA1010 Determ. of nitrogen in wheat
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 Corn, Maize, Rice, Peas and Wheat, Durum, Rye, Barley and Oats.

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 6492

Application Notes
LA1002, Appl. Guide Solvent Extraction
LA1005, Extr. of Total Fat in Petfood
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 Wheat, Corn, and Soy Flour, Feeds, and Mixed Feeds

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
AOAC 920.39
AOAC 2003.06
AACC 30-25
AOCS Ba 3-38

Application Notes
LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Extraction of Oil in Cereal Adjuncts

OPSIS LiquidLINE provides instruments to extract oil, using hot solvent extraction, from cereal adjuncts.

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
AOAC 945.16

Application Notes
LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Crude Fiber

OPSIS LiquidLINE has instruments to determine Crude Fiber (CF) according to the Weende reference method. Determination of fiber in cereal, rice, maize, wheat among others.

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

OPSIS LiquidLINE provides solutions to determine Acid Detergent (ADF), Neutral Detergent (ADF) and Acid Lignin Fiber (ADL) according to the Van Soest method. Determination of detergent fiber in Barley, Maize, Oats, Rice, Rye, Wheat among others.

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 through-put, 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

OPSIS LiquidLINE - Innovative Wet Chemistry

OPSIS 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

OPSIS AB, Box 244
SE-244 02 Furulund Sweden
Telephone +46 46 72 25 00
Telefax +46 46 72 25 01
E-mail info@opsis.se
www.liquidline.se

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