



Solutions for Fish

Wet Chemistry Analyses for Fish and producers of Marine products

Crude Protein

OP SIS 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 seafood, fishmeal, fish and other marine products

Our Solution

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

Standards
AOAC 955.04
IAFMM TB08

Application Notes

LA1000 Application Guide Kjeldahl
LA1012 Determ. of nitrogen in fish meal
Further Notes on request

TVB-N

The release of amines such as trimethylamine (TMA), dimethylamine (DMA) and ammonia from decomposing fish, are collectively known as total volatile basic nitrogen (TVB-N). TVB-N is one of the most widely used methods today to estimate the degree of decomposition of the fish.

The reference method involves steam distillation and OP SIS LiquidLINE has solutions for this.

Our Solution

- KjelROC Auto or Manual Distillation unit with programming capabilities make distillation easy.

Standards
95/149/EC

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Crude Fat

OP SIS 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.

Example: Fat in fish meal

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 948.15
AOAC 948.16

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Total Fat

OP SIS 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 smoked trout, surimi and fish meal

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

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Crude Fiber

OP SIS LiquidLINE has instruments to determine Crude Fiber (CF) according to the Weende reference method. Determination of fiber in fish and shrimp meals 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

OP SIS 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 fish and shrimp meals 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 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

OP SIS LIQUIDLINE - INNOVATIVE WET CHEMISTRY

OP SIS 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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