



Solutions for Meat

Wet Chemistry Analyses for Meat and producers of Meat 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 hamburgers, beef, meat, dried meat, sausages and meat products.

Our Solution

- The KjelROC Digester 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

ISO 937
ISO 5378
AOAC 928.08
AOAC 981.10

Application Notes

LA1000 Application Guide Kjeldahl
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 Meat and Meat products

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 1443

Application Notes

LA1002, Appl. Guide Solvent Extraction
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.

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 1444
AOAC 991.36

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Hydroxyproline

Collagen is an abundant connective tissue protein and is a contributing factor to variation in meat tenderness and texture. To get an indication of the amount of collagen in meat, Hydroxyproline is measured.

The method includes hydrolysis with sulphuric acid, oxidation with chloramine-T, and formation of a reddish purple complex with 4-dimethylaminobenzaldehyde.

OP SIS LiquidLINE provides instruments to assist in the hydrolysis step when determining Hydroxyproline.

Our Solution

- A wide range of digester models with 10 and 20 tubes and a wide range of accessories such as scrubbers and water jet pumps makes it possible to customise the specific solution.
- The KjelROC Digester Advanced motor lift makes the digestion efficient and saves valuable operator time.

Standards
AOAC 990.26

Application Notes
LA1000 Application Guide Kjeldahl
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. OP SIS 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 meat and sausages

Our Solution

- OP SIS 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

Application Notes
LA1000 Application Guide Kjeldahl
Further 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. We can offer:

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

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