



Solutions for Fruits and Nuts

Wet Chemistry Analyses for Fruit and Nut farms

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 determination in fruits, fruit products, nuts and nut 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 saving time and costs.

Standards

AOAC 920.152
AOAC 950.48

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Crude Fat

OP SIS LiquidLINE provides instruments to extract oil from plants and seeds.

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

Examples: Fat in nuts and nut products

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 948.22
AOCS Ba 3-38

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Total SO₂

SO₂ is used as preservative in the fruit industry, in particular for dried fruits.

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 dried apricots, dried fruits and Total SO₂ in fruit juices

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

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.

APPLICATION LABORATORY READY TO ASSIST

We have our own Wet Chemistry laboratory in Sweden, ready to assist you in any challenges you might have. We do not only test your instrument prior to shipment but we can also develop applications and provide assistance to optimise your methods.



CUSTOMISED TRAINING AND SUPPORT FROM SWEDEN

A combination of young engineers and very senior advisors, most of them with over forty years of experience in wet chemistry instruments, is a powerful combination. We can offer dedicated and skilful technical and application support on-site as well as dedicated customer sessions on internet. You are never alone when selecting OPSIS LiquidLINE.



LATEST IN MAINTENANCE

Our products include maintenance recommendations as well as hands-on guides on how to perform analyses. To raise the standard we have implemented the concept of QR-codes on components for tracking component failures, advanced service menus with service tracking and capabilities for remote login and support. Some instruments even include performance tracking.

A COMPLETE PORTFOLIO



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