OPSIS®
LIQUIDLINE®

Solutions for Fertilisers

Wet Chemistry Analyses for Producers of Fertilisers

Total Kjeldahl Nitrogen (TKN)

OPSIS LiquidLINE has solutions for determination of Total Nitrogen (TKN) in Fertilisers.
The samples are digested with sulphuric acid to convert organic nitrogen into ammonium sulphate. The samples are further distilled by steam distillation followed by titration. Reducing agents, such as salicylic acid or Devarda's alloy, might also be added in digestion step.

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 ensures stable and reliable results.
- KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation and wireless communication saves time and costs.

Standards

ISO 5315:1984

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Total Oxidised Nitrogen (T.O.N)

Total oxidised Nitrogen, Nitrite (NO_2) and Nitrate (NO_3), can be determined with OPSIS LiquidLINE instruments. Determination is done in two steps, first to determine free and fixed ammonia and second step with Devarda's Alloy.

Our Solution

- KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation and wireless communication saving time and costs.

Standards

AOAC 892.01
AOAC 920.03

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Ammonia (NH_3), Urea-N, Ammonium (NH_4)

Ammonia, sometimes called free ammonia, can be determined with steam distillation followed by titration.
Ammonium, fixed ammonia, can be determined by adding alkali prior to the distillation.

Our Solution

- KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation and wireless communication saving time and costs.

Standards

AOAC 955.04
AOAC 959.03
AOAC 978.02

Application Notes

LA1000 Application Guide Kjeldahl
Further Notes on request

Anticaking Additives

OPSIS LiquidLINE provides instruments to extract additives from Fertilisers, something desired when measuring anticaking additives.
The sample is prepared and thereafter extracted in hot solvents. Calculation of fat content follows gravimetrically 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.

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Oil

In some cases it is interesting to determine the oil content in Fertiliser (not only fat but also fat-soluble pigments). OPSIS LiquidLINE provides instruments to extract oil from Fertilisers.
The sample is prepared and thereafter extracted in hot solvents.

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

JOCS (Japan Oil Chemist Society), Standard Method for the Analysis of Fats, Oils and Related Materials (2003)

Application Notes

LA1002, Appl. Guide Solvent Extraction
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.

- An Application Laboratory Ready to Assist
- Customized Training and Support from Sweden
- The Latest in Maintenance
- A Complete Portfolio

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