AC Fast DHA Analyzer Provides a Fast and Reliable Component Identification

Product Brief



INTRODUCTION

Understanding the composition of light hydrocarbon mixtures is essential for the hydrocarbon processing industry to optimize product quality, blending operations or the use of catalysts.

One way to identify components is the Detailed Hydrocarbon Analysis (DHA) technique, which uses a single column technology to determine individual components in petroleum streams.

FAST DHA ANALYSIS

AC Analytical Controls offers a fast DHA application that, in only 38 minutes, characterizes the C1 - nC14 hydrocarbons in:

- Naphtha
- Reformer feed
- Reformate
- Alkylate
- Isomerate

The DHA technology incorporates an optimized calibration and peak identification based on the Kovats index.

ASSURED PEAK IDENTIFICATION

AC assures the critical separation for:

- benzene
- para- & methyl-Xylene

HIGH PRODUCTION GC PERFORMANCE

The AC Fast DHA system uses the new Agilent Technologies (Agilent) 6850 Series II Network GC system equipped with:

- an automatic liquid sampler
- · a split/splitless injector
- · a di-methyl silicone capillary column
- a flame ionization detector (FID)

The Agilent 6850 Series II GC uses only half the footprint of a standard dual channel GC. Designed for the production environment, the 6850 Series II GC is easy to use and maintain. The new GC performance optimizes the oven capability and provides a fast operation.

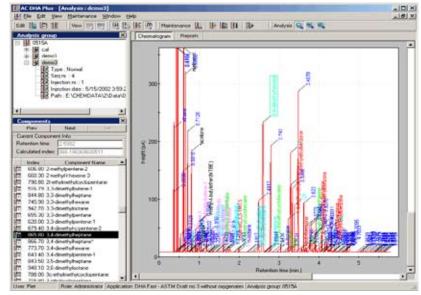


PRE-PROGRAMMED SETTINGS

Pre-programmed settings contribute to analysis reliability. The AC DHA Plus software predefines the properties of the DHA application, such as:

- · molecular weight
- · carbon & octane number
- retention index

- · response factor
- boiling point
- density or specific gravity



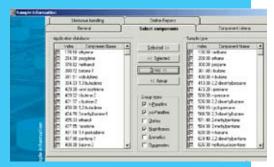
AC Fast DHA Analysis of an Alkylate





EASE OF USE

The AC DHA software includes several editors and menus to dedicate the DHA analysis to the sample. An example is the Sample Information Editor. Just clicking the peak label in the chromatogram enables the user to easily select another component in the components window and adjust the component identification.



AC Sample Information Editor

REPORTING OPTIONS

The following report features are available

- Chromatogram with colored peak identification
- · Component concentrations table
- True boiling point distribution report
- Carbon number versus group type table
- RON specification
- Specific gravity and molecular weight report
- Export of report to either CSV or PDF file

STABLE PERFORMANCE

To verify the DHA application, AC offers n-alkanes mixtures and quality control samples. The AC Quality Control (QC) samples range from reformer feed, reformate, alkylate, isomerate and FCC naphtha to various gasolines. During installation, the AC engineer uses the QC samples to check system performance. Operators can use the samples for a qualitative check of the DHA analyzer on a regular basis.

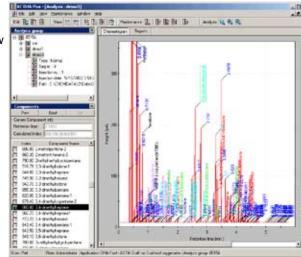
ALL DATA IN ONE SCREEN

The main AC DHA analysis screen consists of three sections:

- Analysis tree viewer
- Components list
- Analysis data in either a chromatogram or report

Displaying all analysis data in one screen enables the user to view the chromatogram, reports, component properties and analysis tree at the same time.

The on-screen chromatogram includes colored peaks and component labels or retention times.



AC DHA Plus Analysis Menu

FEATURES & BENEFITS

- ✓ Fast DHA analysis occurs in 38 minutes
- Optimized calibration and peak identification based on Kovats Index
- ✓ Analyzer fully automates high resolution chromatography
- ✔ Application incorporates high production GC performance
- Predefined settings contribute to reliable peak identification
- ✓ Easy check and adjustment of component identification is possible with simple point and click
- Multiple report options include chromatogram and table reports that identify PIONA, RON, specific gravity and TBP
- A selection of AC quality contol samples tunes the application to analytical requirements
- Analyzer integrates proven Agilent and Microsoft technologies
- Qualified support engineer installs system on-site and familiarizes users with operation
- ✓ One year warranty covers hardware and application
- ✓ Analyzers include free helpdesk assistance for any hardware or software related questions
- Optional on-line remote support by modem connection is available

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