



# ANALYSIS

## CHEMICAL CHARACTERIZATION OF ESSENTIAL OILS (CHEMOTYPING)

It is the most accurate multi-column methodology for determining the chemical composition of essential oils. Designed for bioactivity, chemotyping and authenticity studies, as well as for exhaustive quality control. Report with chromatogram graphs and all identified components together with CAS number and percentage. Typically, more than 99% of the total compounds are identified. Additional information in the report: specifications or standards, chemical families, IFRA restrictions and cosmetic allergens. LoD=30ppm

ISO 7609 &  
11024-2  
(2xGC-MS/FID)

CHA

5 ml

## BASIC CHARACTERISATION OF ESSENTIAL OILS

Intermediate precision methodology, with the possibility of co-elutions, designed for routine quality control. GC-MS/FID technique. Report with chromatogram graphs and all identified compounds together with the CAS No. and their percentage. Typically, 15 - 20 compounds are identified. Additional information in the report: specifications or standards, chemical families, IFRA restrictions and cosmetic allergens.

ISO 7609 &  
11024-2  
(GC-MS/FID)

GC

5 ml

## PURITY TEST OF ESSENTIAL OILS (Authentication)

Characterisation report (CHA) + Trace marker analysis, fingerprint interpretation, chiral analysis (if applicable), non-volatile content and conclusions.

Internal (2xGC-  
MS/FID)

AUT

5 ml

## FATTY ACID PROFILE OF VEGETABLE OILS

Report with the composition of Fatty Acids. Esterification + GC-MS/FID. Once concentrated and separated, only the volatile fraction is analysed.

ISO 12966-1-2  
(GC-MS/FID)

VGT

5 ml

## PHYSICO-CHEMICAL MEASUREMENTS

Density, Refractive Index, Optical Rotation. In the application form, specify "PC" followed by the first letter of the requested parameter in English.

Several  
ISO

PC [D/R/O]

10 ml

**\*ACID VALUE.** Equivalent methods to: AOCS Cd 8-53, ISO 3960, ISO 18321 **\*PEROXIDE VALUE.** Equivalent methods to: ISO 660, AOCS Cd 3d-63, AOCS Ca 5a-40, ISO 1242

Photometric  
methods

AC/  
PER

5 ml

## CHEMICAL CHARACTERISATION OF PLANT MATERIAL

Steam distillation followed by chemotyping or characterisation (CHA).

Internal (2xGC-  
MS/FID)

CHAVG

1 Kg

## CHIRAL ANALYSIS (Enantiomeric Excess)

Determination by GC-FID, of the ratio between Dextro and Levo enantiomers of chiral aromatic substances.

ISO 22972:2004  
(GC-FID)

QA-CHI

5 ml

## CHARACTERIZATION OF FRAGRANCES, AROMAS AND SYNERGIES (GC)

Multi-column methodology to determine chemical composition. Ideal for perfumers, aromists, or companies that choose to outsource the chromatographic analysis of a fragrance or aroma. Report with the components identified along with the CAS number and their percentage. Identification of more than 99% of the total. Additional information in the report: chemical families, IFRA restrictions and cosmetic allergens. You do not get a formula, but an analysis. LoD=30ppm

Internal  
(2xGC-MS/FID)

CHA\_FR

5 ml

## COSMETIC ALLERGEN DETERMINATION - FRAGRANCES

Determination by GC-MS/FID, with correction factors and internal standards, of the 57 allergenic substances according to Annex III of Regulation (EC) No 1223/2009. LoQ: 30 ppm. Determination per batch (Certificate of Analysis)

Internal  
(2xGC-MS/FID)

ALLSC

5 ml

## EXTRACTION OF THE AROMATIC FRACTION

Application to CHA, GC, AUT services of products with aqueous phase (e.g.: hydrolates or beverages), and/or non-volatile fraction (e.g.: market products such as soaps, creams, softeners or extracts such as absolutes, resinoids, etc.).

Internal  
HS-SPME

EXT

5 ml

## CONSULTANCY ON RESULTS

Organoleptic analysis, comparison with market standards. Application and quality conclusions. Telephone, e-mail or WhatsApp consultations included. Applicable to GC, CHA and PC.

AS



ANALYSIS PROTOCOLS			CODE	SAMPLE
<b>COMPLETE AUTHENTICITY AND QUALITY ANALYSIS OF ESSENTIAL OILS</b> Characterization, marker analysis, chiral analysis., together with physical-chemical and organoleptic analysis. Report with conclusions and advice on the results included. AUT+PC.			AUT2	15 ml
<b>CHEMICAL CHARACTERIZATION OF HYDROSOLS (CHEMOTYPING)</b> Essential oil content and characterization report (CHA). EXT + CHA			CHHY	50 ml
<b>QUALITY TEST OF ESSENTIAL OILS (CoA)</b> Complete control with consulting, comparison with standards and CoA issuance. PER+CHA+AS+PC-D+PC-R+PC-O. Peroxide value only for highly oxidizable oils (with IFRA specifications).			QC-EO	15 ml
<b>QUALITY TEST OF VEGETABLE OILS (CoA)</b> Complete control with consultancy, comparison with standards and CoA issuance. PER+AC+VGT+AS+PC-D+PC-R.			QC-VO	15 ml
<b>RE-TEST OF ESSENTIAL AND VEGETABLE OILS</b> For the extension of the expiration period. AC+PER+AS.			RT-VO RT-EO	5 ml
<b>BASIC QUALITY TEST OF ESSENTIAL OILS (CoA)</b> Basic characterization + Advice on results + Organoleptic and physical-chemical profile. GC+AS+PC.			QC-EO BASIC	5 ml
<b>PHYSICAL-CHEMICAL PROFILE</b> Density. Refractive index. Optical rotation.			PC [D/R/O]	30 ml
DOCUMENTATION			CODE	SAMPLE
<b>TECHNICAL DOCUMENTATION PACKAGE FOR THE COSMETICS SECTOR (ESSENTIAL OILS)</b>  To market essential oils in the EU.  Includes: MSDS (REACH-CLP), TDS, ALLERGENS CERTIFICATE, IFRA CERTIFICATE, BATCH ANALYSIS CERTIFICATE (Check prices for individual certificates)  Chemical characterization process (CHA) + Screening or verification of restricted substances. Preparation of Word templates (English and Spanish) of the 4 documents, based on that typical composition. The characterization report in Pdf is included in the price.  Also available for HYDROLATES, VOLATILE ABSOLUTES, AND FRAGRANCES (check price)			QC-EO_DOC+ ALLSC2+ EQG1	20 ml
<b>COSMETIC ALLERGEN CERTIFICATION AND IFRA-CERTIFICATE FOR RAW MATERIALS (ESSENTIAL OILS)</b>  Chemical characterization process (CHA) + Screening of restricted substances. Determination by GC-MS/FID, with correction factors and internal standards, of the 57 allergenic substances, according to Annex III of Regulation (EC) No. 1223/2009. Cut-off value: 30 ppm.  Preparation of templates in Word (English and Spanish) of both certificates based on that typical composition. The characterization report and allergen screening report in PDF is included in the price.  Also available for HYDROLATES, VOLATILE ABSOLUTES, AND FRAGRANCES (check price)			CHA_DOC+A LLSC2+ EQG2+ EQG4	10 ml