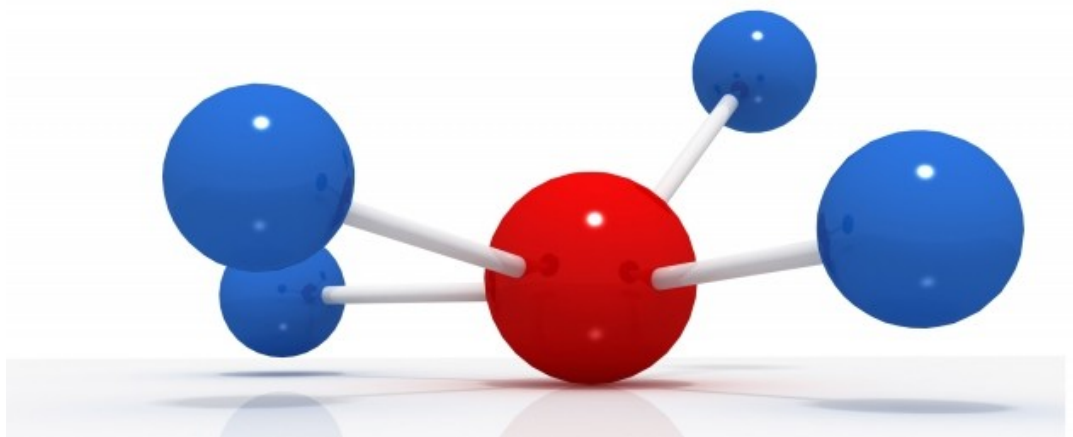


FOOD CHEMISTRY



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING



Vitamins, minerals, enzymes, additives, flavors, and colors...all food must be labeled with the exact components and amounts. Contaminants or allergens -- it is vital that you know what other elements are present.

From anchovies to zucchini, and every food between, EMSL has a laboratory near you that specializes in chemical testing for food; assurance that your product is safe for all consumers.

For over 30 years EMSL has led the industry in testing and analysis. Our professional staff of trained scientists, technicians and analysts can also provide Method Validation & Development.

CHEMICAL Laboratory Services

Submit 5 oz sample per analyte requested*

Antioxidative Capacity

Anti-Oxidant - ORAC

Hydro Only
Hydrophilic
Lipophilic
Oil

Polyphenols (total)

Vit C & Reducing Sugars

no correction for
with correction for

Tannins (total)

Amino Acids

Free Amino Acids

Amino Acid Profile Package

Alanine, Arginine, Aspartic, Cysteine, Glutamic, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Proline, Threonine, Tryptophan, Tyrosine, Serine, and Valine

Acid Stable Amino Acids Package

Alanine, Arginine, Aspartic Acid, Cysteine, Lutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Proline, Serine, Threonine, Tyrosine, Valine, and Hydroxyproline

Cysteine, Methionine

Tryptophan

L-Carnitine

Creatine & Creatinine

Carotenoids

Beta-Carotene

Carotenoids

Total Carotenoids

(Spectrophotometric)

Astaxanthin

Color Analysis*submit 4 oz

ICUMSA

L*a*b color

SRM, EBC (Spectrophotometric)

Contaminants

Sterols

Acrylamide

Heavy Metals by ICP

Heavy Metals Package:

Ag, Al, As, Ba, Be, Cd, Co, Cu, Fe, Hg, Mn, Ni, Pb, Sb, Se, Sn

Heavy Metals by ICP/MS

low LOD <1 ppm

Arsenic Speciation

Organic & Inorganic

Heavy Metals Speciation

Cr, Hg, Pb, Se, Sn
Organic & Inorganic
Mercury (CVAA)

Hexane

Lead in Food by ICP

Melamine by LC/MS

Patulin

Pesticides

Multi-Residue-Analysis (MRA)
N-Methyl Carbamates
Organochlorinated
Organonitrogen other than Triazines
N-Methyl Carbamates
Organophosphates
Single Residue
Triazines

Petroleum Products Dispersants

Polyaromatic Hydrocarbons (PAH)

Polychlorinated Biphenyl (PCB)

Total Petroleum Hydrocarbons (TPH)

TPH & PAH Package

Enzymes and Proteins

Bromelain (matrix specific)

Casein (total)

Enzymes:

Alpha-Amylase, Beta-Amylase, Cellulase, Gamma-Amylase, Lipase, Phosphatase, Protease

Prolactin

Total Whey Protein

Alpha Lactoalbumin, Beta Lactoglobulin

Fat and Fatty Acids

Fatty Acids Profile

Omega-3, Omega-6, Omega-9

Fatty Acids, Free by Titration

Milk Fat

Total (Crude) Fat by Acid Hydrolysis

Fat (Soxhlet)

Food Additives & Preservatives

Artificial Sweeteners

Approved by FDA Package

Acesulfame K, Aspartame, Cyclamate, Saccharin, Sucralose

Non-Approved by FDA

Cyclamate
Alitame
Dulcin

Color Additives

Approved for Use in Food

FD&C

Blue #1, Blue #2
Green #3
Red #3, Red #40
Yellow #5, Yellow #6
Citrus Red #2 & Orange B

Artificial Non-Approved by FDA Of Natural Origin

Approved for Use in Human Food

Carmine
Turmeric (Curcumin)
Annatto

Preservatives

Parabens Package

Butyl, Ethyl, Isobutyl, Methyl, Parahydroxybenzoates, Propyl

1-2 Parabens

Sorbate

Benzoate

Antioxidants

BHA
BHT

Etoxyquin (Santoquin)

Glycerols

Glycols

Alcohol Content (Ethanol)

Soluble Salt (Sodium Chloride)

Hormones * submit 1 oz

Estradiol

Hormone Analysis

Estragen, Progesterone, Testosterone

Sterols Package

Beta Sitosterol, Brassicasterol, Campesterol, Stigmasterol

Organic/Phenolic Acids

Organic

Citric Acid
Malic Acid
Lactic Acid
Oxalic Acid
Cyclamate
Propionic Acid
Sorbic Acid
Benzoic Acid
Succinic Acid
Fumaric Acid

Phenolic

Chicoric Acid

Echinacoside

First Sample in Batch
Additional Samples in Batch

Volatile Organic Acids

Rancidity

Fatty Acids, Free by Titration

Hexanal

Oxidative Stability Index

p-Anisidine value

Peroxide value

Thiobarbituric Acid (TBA) Value

Sugars & Polysaccharides

Sugar Profile:

Fructose, Glucose, Lactose, Maltose, Mannose, Sucrose

Sugar profile, low level

Sugar alcohols

Fructan

HPLC

Spectrophotometric

Fructo-oligosaccharides

Inulin

Nisin (Fructant)

Reducing Sugars

Glucosamine

Chondroitin

Beta Glucan

Amylose

Methods offered include: FDA/BAM, USDA, USP, AOAC, CMMEF



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

www.FoodTestingLab.com

800.220.3675

EMSL Analytical, Inc. is an independent, contract testing laboratory specializing in
Chemistry
Food Testing
Materials Analysis
Failure Analysis
Microbiology

FDA Registered and DEA Licensed
cGMP and ISO 17025 Compliant

EMSL Analytical Locations

