



## Service Specification

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**1 SAMPLE PREPARATION**

- check for deceptive packaging
- homogenise
- preparation
- storage test

**2 SENSORY**

- triangular test
- sensorial analysis

**3 MICROSCOPY**

- animal components
- identification of insects
- microscopical examination

**4 PHYSICAL PARAMETERS**

- ammonium chloride
- ash
- aw-value
- brix (densitometrisch)
- brix value (soluble dry mass)
- carbon dioxide content in the inert gas

- charge / filling quantity
- chloride
- conductivity
- defrost/melt loss
- degree of acidity
- density
- density of distillate
- drain weight
- dry matter
- drying loss
- essential oil / steam volatile oil
- formol value
- free acids
- freezing point
- HCl-insoluble ash
- item weight
- number of pieces
- osmolality
- oxygen content in the protective gas
- pH-value
- portion (1 piece)
- refraction index
- relative density
- size sorting
- solubility
- table salt, sodium chloride

- total acid
- viscosity / flow limit
- volatile acid
- water content
- 

**5 FOOD ANALYSIS**

- anions, basic price
- caffeine
- carbon dioxide
- citric acid
- dry matter (feed)
- ethanol
- free fat
- fumaric acid
- hesperidin
- hydrocyanic acid, free
- hydrocyanic acid, total
- indol
- iso-citric acid
- isoflavones
- lactic acid
- lactic acid, D-
- lactic acid, L-
- malic acid
- methyl-xanthines, basic price
- naringin
- nitrate
- nitrite
- non-volatile acid
- organic acid, basic price
- tartaric acid
- theobromine
- total-dry-extract

**6 PROTEIN ANALYTICS**

- biogenic amines
- collagen degradation products
- crude protein
- diastase value
- gelatine
- glutamic acid
- hazelnut
- histamine
- hydroxyproline
- invertase
- L-arginine
- L-Asparagin
- L-aspartic acid

- L-carnitine (free)
- L-carnitine (total)
- L-cystine
- L-glutamic acid
- L-glutamin
- L-histidine
- L-serine
- L-tryptophane
- milk protein
- non protein nitrogen
- nucleotides
- proline
- spectrum of amino acids
- taurine
- total Kjeldahl nitrogen
- TVBN

## 7 CARBOHYDRATE ANALYTICS

- circular polarization
- crude fibre
- fibre (excl. Inulin)
- fibre, insoluble
- fibre, soluble
- fibre, total
- fructans
- fructose
- galactooligosaccharide
- galactose
- glucose
- glucose traecle/syrup
- lactose
- maltodextrins
- maltose
- rhamnose
- ribose
- saccharose, sucrose
- spectrum of sugar
- starch
- sugar, basic price
- sugars, total
- xylose

## 8 FAT ANALYSIS

- acid value
- anisidine value
- butyric acid methylester
- cholesterol
- cold test
- saccharin

- fatty acid distribution
- free fatty acid
- hexanal
- iodine value
- isomeric diacylglycerols
- peroxide value
- polar fractions
- polymeric triglycerides
- porpanal / hexanal
- saponification value
- short-chain free fatty acids
- Steradiene
- sterol content
- sterol distribution
- stigmasta-3,5-dien
- total fat
- triglyceride spectrum
- UV absorption of olive oil (K-value)

## 9 ADDITIVES

- acesulfam-K
- antioxidants
- antioxidants BHA, BHT
- aspartame
- benzaldehyde
- benzoic acid
- cetylpyridiniumchloride
- coumarin
- curcumin
- cyclamate
- D-sorbitol
- D-xylitol
- ethyl vanillin
- Ethyl-/Methylvanillin
- evaporated / condensed phosphates
- food colours
- free sulphur dioxide
- glycerine
- glycyrrhetic acid
- hydroxymethylfurfural
- iso-maltitol
- lecithin
- maltitol
- maltol
- mannitol
- p-hydroxybenzoate ester (pHB ester)
- propionic acid
- rutosid-Trihydrate
- wolfram

- sorbic acid
- Steviolglykoside
- sucralose
- total sulphur dioxide
- vanilla
- vanillin methyl

## 10 ELEMENTS

- aluminium
- antimony
- barium
- beryllium
- boron
- calcium
- cerium
- chromium, total
- cobalt
- copper
- digestion
- fluorid
- gold
- ICP/MS Screening
- inorganic bromide, total
- iodine
- iridium
- iron
- lithium
- magnesium
- manganese
- molybdenum
- nickel
- osmium
- palladium
- platinum
- potassium
- radioactivity
- rhodium
- rubidium
- ruthenium
- selenium
- silver
- sodium
- strontium
- sulphur total
- tin
- titanium
- vanadium

- X-ray fluorescence analysis
- zinc

## 10a HEAVY METALS

- arsenic
- cadmium
- inorganic arsenic
- lead
- mercury
- thallium
- uranium

## 11 VITAMINS

- anthocyan-Fingerprint
- ascorbylpalmitate
- Astaxanthin-Enantiomere
- beta-carotene
- biotin
- choline, free
- choline, total
- folate, total
- folates
- folic acid
- inositol
- lutein
- lycopene
- niacin (total)
- pantothenic acid
- polyphenols, total
- ubiquinone Q10
- vitamin A
- vitamin B1 (thiamin)
- vitamin B11
- vitamin B2 (riboflavin)
- vitamin B6
- vitamin C (ascorbic acid)
- vitamin D2 (ergocalciferol)
- vitamin D3
- vitamin E
- vitamin E (spectrum of tocopherols)
- vitamin E (tocopherol/tocotrienol spectrum)
- vitamin E-acetate
- vitamin K1 (phylloquinone)

**12 TOXINS**

- 14-acetyldeoxynivalenol
- 3-acetyldeoxynivalenol
- aflatoxin M1
- aflatoxins
- alternariatoxins
- deoxynivalenol
- ergosterol
- fumonisins
- fusarenon-X
- masked mycotoxins
- nivalenol
- ochratoxin A
- patulin
- T2-Toxin/HT2-Toxin
- zearalenone

**13 PESTICIDES**

- chlorate
- dithianon
- dithiocarbamates
- ethephon
- Ethoxyquin + Dimer
- Glyphosat/AMPA
- Glyphosat/AMPA/Glufosinat
- glyphosate
  
- matrine
  
- matrine and oxymatrine
  
- morpholine
  
- paraquat
- pentachlorophenol
- perchlorate / chlorate
- pesticides
- pesticides after alkaline hydrolysis
- phosphonic acid
- plant growth regulators
- polar pesticides
- quaternary ammonium compounds (QAC)
- sum of Folpet und Phthalimide, expressed as Folpet

**14 CONTAMINANTS**

- 1,3-DCP and 3-MCPD (free)
- 3-MCPD
- 3-MCPD-Ester
- acrylamide
- aromatic hydrocarbons
- benzene
- benzo(a)pyrene
- benzophenone
- benzyl-2-naphthylether
- Bisphenol A / BADGE
- chlorinated paraffins
- diisopropylnaphthalene
- ester-bound 3-MCPD and glycidol
- ethyl carbamate
- formaldehyde (after migration)
- furan
- GC/MS-screening
- MDAF / TPAF
- methanol
- n-hexane
- nitrosamines (NDMA)
- perfluorinated surfactants
- phlorizine
- plasticizer
- polychloride biphenyls, non dioxin-like
  
- Polychlorinated biphenyls, non-dioxin-like + PCB 118
- polycyclic aromatic hydrocarbons (EFSA)
- polycyclic aromatic hydrocarbons (EPA)
  
- pyrrolizidine alkaloids
- solanaceae alkaloids
- solanin/chaconin
- solvent
- sudan dyes
- tetrahydrocannabinole
- toluene
- trihalogen methanes
- tropane alkaloids
  
- vinyl chloride
  
- volatile organic chloro hydrocarbons
- soy protein

**14a MINERAL OIL**

- mineral oil
- mineral oil profile analysis
- MOAH characterization (GCxGC-TOF-MS)
- MOSH characterization (GCxGC-TOF-MS)
- residual oil content (compressed air)

**15 PHARMACEUTICALS**

- Chloramphenicol-Sulfonamid-Tetracyclin Screening
- chromatographic profile
- morphine
- nitrofurane
- opiate spectrum (morphine, codeine)
- opiate spectrum (total)
- polydecanole
- streptomycin / dihydrostreptomycin
- tetracycline

**16a ALLERGENS**

- almond
- brazil nut
- casein
- cashew
- chickpea
- gliadin
- hazelnut
- lactoglobulin
- lupine protein
- milkprotein
- mustard
- peanut
- soy protein
- genetically modified organisms (Mon810-corn)

**16b DNA ANALYSIS VEGETABLE FOOD**

- almond
- apricot
- apricot (qualitative)
- celeriac
- mustard (white)
- NULL
- pistachio
- rap
- rice (qualitative, PCR)
- sesame
- soy
- sunflower
- walnut

**16c DNA ANALYSIS GMO**

- CMS sunflower
- CMS-radish
- DNA-extraction
- genetically modified organisms (CTP2-CP4-EPSPS)
- genetically modified organisms (Event 305423-Soja)
- genetically modified organisms (FMV34S-Promotor)
- genetically modified organisms (pat)
- genetically modified organisms (P-nos-npt II)
- genetically modified organisms (bar)
- genetically modified organisms (NOS-terminator)
- genetically modified organisms (p35S-pat)
- genetically modified organisms (35S-Promotor)
- genetically modified organisms (Bt11-corn)
- genetically modified organisms (Bt156 corn)
- genetically modified organisms (GA19-corn)
- genetically modified organisms (MIR604-corn)
- enterobacteriaceae

- genetically modified organisms (MON863-corn)
- genetically modified organisms (NK603-maize)
- genetically modified organisms (Roundup Ready Soja)
- genetically modified organisms (TC1407-corn)

#### 16d DNA ANALYSIS ANIMAL SPECIES

- animal species
- animal species bovine
- animal species chicken (semi-quantitative, PCR)
- animal species duck (qualitative, PCR)
- animal species fish (qualitative, PCR)
- animal species horse (qualitative, PCR)
- animal species horse (semi-quantitative)
- animal species turkey (semi-quantitative)
- animal species water buffalo (semi-quantitative, PCR)
- bovine
- fish species-identification
- pork
- turkey
- water buffalo

#### 17 MICROBIOLOGY

- aerobic plate count
- anaerobic plate count
- Bacillus spp.
- Clostridium perfringens
- coagulase positive staphylococci (cfu/g)
- coliform bacteria
- colony count
- Cronobacter spp.
- E. coli
- spores thermophile spore-formers, anaerob
- staphylococci

- enterococci
- ESBL (Extended Spectrum- $\beta$ -Laktamasen)
- Escherichia coli
- faecalic enterococci
- germ identification (API)
- germ identification (VITEK 2)
- germ isolate zoonose
- incubation
- inhibitor test
- lactic acid bacteria, anaerob
- lactobacilli
- legionella
- Legionella pneumophila (qPCR)
- Listeria monocytogenes
- mesophile spore-formers, aerob
- mesophilic sulphate-reducing clostridia
- moulds
- osmotolerant yeast
- presumptive Bacillus cereus
- presumptive Pseudomonaden
- pseudomonads
- Pseudomonas aeruginosa
- salmonella
- serotyping of legionella
- spores mesoph. sulfitred. Clostridien
- spores mesophilic spore-formers, aerob
- spores mesophilic spore-formers, anaerob
- spores psychrotr. spore-formers, aerob
- spores psychrotr. spore-formers, anaerob
- spores thermophil spore-formers, aerob
- total organic carbon
- turbidity (water)

- Staphylococcus aureus
- sulfite reducing spore-formers anaerob
- thermophile spore-formers EPUebersicht
- vibrios
- yeasts

## 18 WATER ANALYSIS

- acid capacity (m-value)
- adsorbable organic halogens (AOX)
- ammonium
- biochemical oxygen demand (BOD)
- bromate
- calcite solution capacity
- chemical oxygen demand (COD)
- chlorate
- chloride
- chlorine dioxide
- chlorine, bound
- chlorine, free
- chlorite
- chromium VI
- colouring (water)
- conductivity
- cyanide, easily purgeable
- dissolved organic carbon (DOC)
- filtratable substances
- fluoride (water)
- hydrazine
- hydrogen carbonate
- nitrate
- nitrite
- oxidizability
- phosphate, -ortho
- phosphorus
- pH-value
- sedimentable substances
- spectral absorption coefficient (254nm)
- sulphate
- total hardness of water

## 19 CONSUMER GOODS

- barrier test
- identification of material
- migration of certain elements (gastric acid)
- migration of certain elements (sweat)
- mineral oil
- test of chlorinated plastic materials
- total migration volatile components