

# YOUR PARTNER IN NUTRIENT ANALYSIS



**TNO** triskelion bv

TNO Triskelion is a contract research organisation active in toxicology research, analytical chemistry and chemical risk assessment. The mission of TNO Triskelion is to guarantee the quality and safety of food ingredients, food products, chemical substances and medicines. The food quality team of TNO Triskelion supports the food and pharmaceutical industry with the analysis of nutrients and bioactives on food, food supplements and pet food as well as clinical samples, body fluids and tissues.

## TRUSTED RESULTS FOR THE VERIFICATION OF PRODUCT LABEL COMPLIANCE

For you as a food producer it is imperative to know that your products are both legally compliant and in agreement with your own label claim. This requires reliable and accurate analytical data.

Many R&D and QA/QC departments of producers in the food and feed industry rely on TNO Triskelion for analytical support. Our strong position in critical food products such as infant formula or medical nutrition reflects our high quality standards.

Analytical services include:

- all vitamins;
- amino acids;
- macro nutrients;
- trace elements;
- minerals.

## TRUSTED RESULTS FOR PRODUCT DEVELOPMENT

In product development choices have to be made on ingredient composition, how to dose them and how to make sure that the production process does not negatively influence its functionality or targeted concentration. Whatever the case, there is a need for high quality, accurate and reliable analytical data to ensure that intended product specifications are met.

## TRUSTED RESULTS IN RESEARCH STUDIES

TNO Triskelion is the preferred analytical partner in numerous studies where accurate analysis of targeted nutrients, bioactive compounds or other specialties is key to understanding, demonstrating or verifying research study objectives. In many cases this is linked to health maintenance or health improvement and



involves measurement in matrices such as tissues or physiological fluids. In addition to vitamins and other relevant nutrients, we have validated methods for other health related compounds such as:

- carotenoids;
- flavonoids;
- glucosinolates;
- phytosterols;
- isoflavones.

TNO Triskelion can also act as your consulting partner for testing strategy and interpreting results.

#### **METHOD DEVELOPMENT AND METHOD VALIDATION**

If you need independent development or validation of analytical methods, TNO Triskelion is a valued and trusted third party. Our project management skills guarantee accurate and reliable results presented in credible reports and delivered on time as promised.

We have extensive experience with a broad range of parameters in many different food and feed related matrices.

#### **QUALITY ASSURANCE AND SERVICE**

TNO Triskelion's food quality laboratories work with ISO/IEC 17025 accreditation (see [www.triskelion.nl](http://www.triskelion.nl) for the accreditation scope). Tests are generally performed in true duplicate with Quality Control samples in each series. However, single analysis is also possible by request (depending on the intended use).

We also use standard reference

materials (when available) and frequently participate in round-robin tests.

For the majority of parameters turnaround times are equal to or better than market standards. In any case, performance is defined in a Service Level Agreement where details of workflow confirmation, communication, ordering and reporting and logistics are documented.

As part of the TNO research organisation, TNO Triskelion is a front runner in equipment. Investing in advanced instruments is matter of course for us in order to ensure compliance with the latest standards. The TNO Triskelion laboratories are equipped with modern analytical instrumentation, including:

**GC equipment;** GC Single Quad with sniff port to determine (off-)flavours, LECO GCGC-TOFMS to determine exact mass and several GC-FID and MSMS systems for routine analysis.

**LC Equipment;** LTQ-FT to determine exact mass and several HPLC/UPLC-Triple Quad/Ion Trap and DAD/FLD systems for routine analysis.

**ICP Equipment;** High-resolution ICP-MS (Element 2) to determine cations or anions simultaneously and ICP-AES for routine analysis.

**IC Equipment;** Ion Chromatograph for the analysis of organic acids, sugars, phosphates and other ionic compounds such as glucosamine and chondroitin.

## **WWW.TRISKELION.NL**

#### **TNO TRISKELION BV**

TNO Triskelion is a contract research organization active in toxicology research, analytical chemistry and chemical risk analyses. The mission of TNO Triskelion is to guarantee the quality and safety of food ingredients, chemical substances and medicines. TNO Triskelion is a subsidiary of TNO, the Netherlands Organisation for Applied Scientific Research.

#### **VISITING ADDRESS**

Utrechtseweg 48  
3704 HE Zeist  
The Netherlands

#### **POSTAL ADDRESS**

P.O. Box 844  
3700 AV Zeist  
The Netherlands

For more information, please contact us.

#### **THE NETHERLANDS**

P +31 88 866 16 20  
F +31 88 866 69 70  
[food@tno.triskelion.nl](mailto:food@tno.triskelion.nl)

a **TNO** company