

# Innovative ingredients to give your brand the edge

Global leader in  
pet premix



# Why Trouw Nutrition is the only reliable choice as your partner in premix.



Operating from our ISO22000:2005 accredited premix plant, Trouw Nutrition is acknowledged worldwide as the industry's gold standard leader and innovator. Our unrivalled knowledge and expertise, supported by our unique Nutrace® food safety and traceability system, make us your only choice of expert partner in developing new ingredient innovations and delivering nutritional solutions tailored to your specific requirements.

## A history of success, a future of innovation

Trouw Nutrition has supported the animal nutrition industry for over 80 years, amassing an unrivalled wealth of knowledge and experience. As global leaders in animal nutrition, we look to the future, adding value by developing feed technologies, ingredient innovations and unique software solutions to meet the demands of the agricultural and companion animal nutrition markets.

## Integrity and trust in every area of the business

Quality, innovation and sustainability are at the heart of everything we do, from research and raw material procurement to the delivery of cutting-edge products and services. Our wide-ranging expertise enables us to partner with nutrition manufacturers catering for all creatures great and small, from cats to cattle, from dogs to donkeys, from hamsters to horses.

However, above all, what differentiates Trouw Nutrition from any of our competitors is our uncompromising attitude to safety, accuracy and precision...



## Safety is our first priority

Of all the ingredients that go into a pet food, it's the premix that poses the biggest risk. It's so concentrated that even the tiniest mistake can have disastrous and widespread consequences. And when you consider that every tonne of premix in your pet food can reach up to 20,000 pets, the issue of safety is one that food manufacturers cannot – indeed, dare not – ignore.

## Protecting your brand and your clients' animals

At Trouw Nutrition, we understand the extent to which a brand could be damaged if it was one of our customers' pet food products responsible for harming just one much-loved pet.

It's why we put such extraordinary effort into ensuring the safety and quality of our premixes, and it's also why – as your future partner – Trouw Nutrition can confidently offer you the assurance that no other premix supplier can... complete peace of mind.

Please read on and discover for yourself how Trouw Nutrition has established an unassailable reputation for operating one of the most advanced food safety and traceability systems in the world, garnering more accreditations for our pet food operations than any other premix supplier in the UK.



This estimate is based on 1 tonne of premix being used at an inclusion rate of 5kg per tonne of dry dog food which is then packed into 10kg bags and sold to 20,000 owners, each owning just one dog.



# The expertise to know. The knowledge to grow. The innovation to develop. The experience to deliver.

It's what we know that makes Trouw Nutrition unique... the science; the technology; the processes. That's how we ensure that our customers in the pet food manufacturing industry receive precisely what they need... a homogenous mix of multiple ingredients and carriers, which they rely on Trouw Nutrition to deliver in the form of practical, applicable nutritional solutions.

That's not to say that we can ever afford to rest on our laurels. Trouw Nutrition retains its position as a worldwide leader through our commitment to learning, developing, innovating and pushing back the boundaries of what is possible in our industry.

## Trouw Nutrition – learning and development

Keeping  
abreast of the  
latest trends  
and nutrients

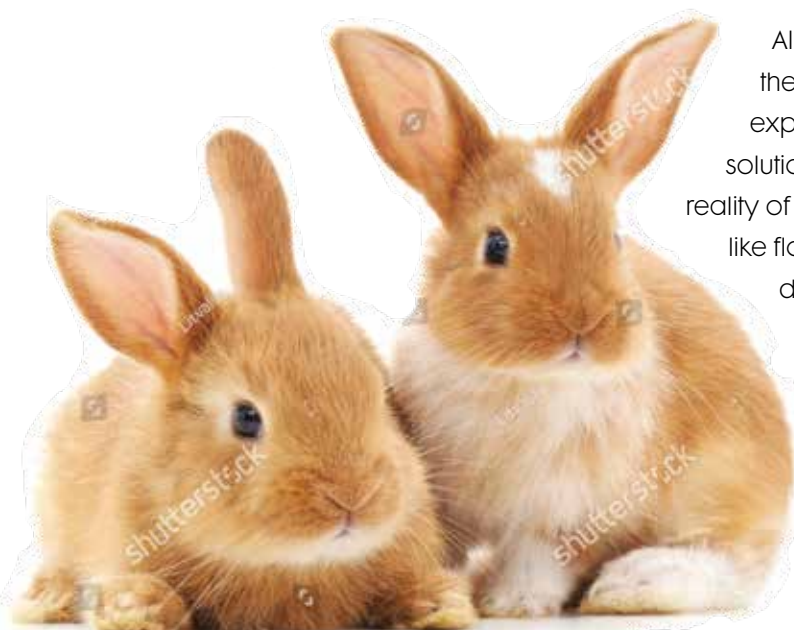
Emerging  
knowledge  
about species  
applicability

Understanding  
individual  
properties of  
ingredients

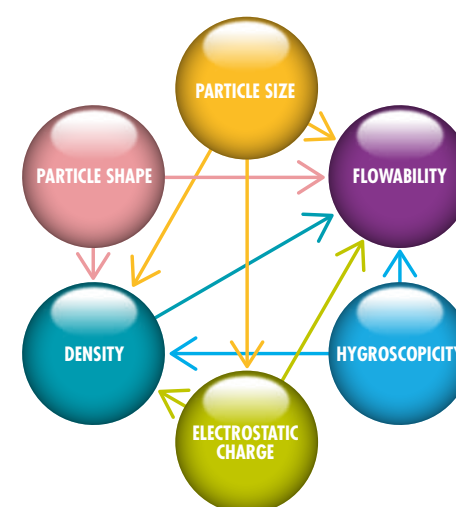
Studying the  
interactions  
between  
ingredients

All this knowledge is made available to you during the design phase of your premix as we harness our expertise to deliver nothing but the very best the premix solution for your requirements. We'll also check the practical reality of your formulation in the laboratory, looking at factors like flowability and particle size before moving to product development trials.

We will also act as your partner in creating the kinds of product innovations that continue to differentiate your brand from the competition, ensuring that the new ingredients spearheading your NPD are correctly formulated into a highly effective premix.



Every ingredient in a premix has different properties; however, it's the interactions between them that make the process so complicated.



Fortunately no other company has more comprehensive knowledge of the factors involved, to help you design your perfect premix.

And beyond premix design and advice, we also offer extensive on-site laboratory services, and can provide you with full cost/value analytics.

## Trouw Nutrition talks the language of premix

Here's a quick glossary of terms that help clarify the science behind the service that Trouw Nutrition offers.

### PREMIX

A homogenous mixture of one or more micro-ingredients, such as vitamins and trace elements, with a diluent and/or carrier. Premixes should be designed to enable uniform dispersion of these micro-ingredients within a pet food.

### BLEND

A homogenous mixture of one or more micro- and macro-ingredients with nutritional or functional properties, such as herbs and fruit extracts.

### BASEMIX

A homogenous mixture containing a premix and various micro- and macro- ingredients used to promote uniform dispersion within a larger mix.

### SUPPLEMENT

A feed used in conjunction with another to improve the nutritive value or performance of the diet.

### CARRIER

A material to which micro- and macro-ingredients are added to carry the active particles by absorbing, impregnating or coating them.

### DILUENT

A material to which micro- and macro-ingredients are added in order to reduce their concentration, providing a safer and more homogenous mix. A diluent may also function as a carrier.

### MICRO-INGREDIENTS

Substances used in small quantities and measured in the food in milligrams or micrograms.

### MACRO-INGREDIENTS

Substances used in greater quantities and measured in the food in grams or kilograms.

# Food safety



## Your number one concern and our number one priority

The exponential growth of the pet nutrition market makes it ever more critical that producers, retailers and pet owners can place absolute trust in the quality and food safety of all the ingredients – traditional and innovative – which are used in the pet food, snacks and treats fed to companion animals.

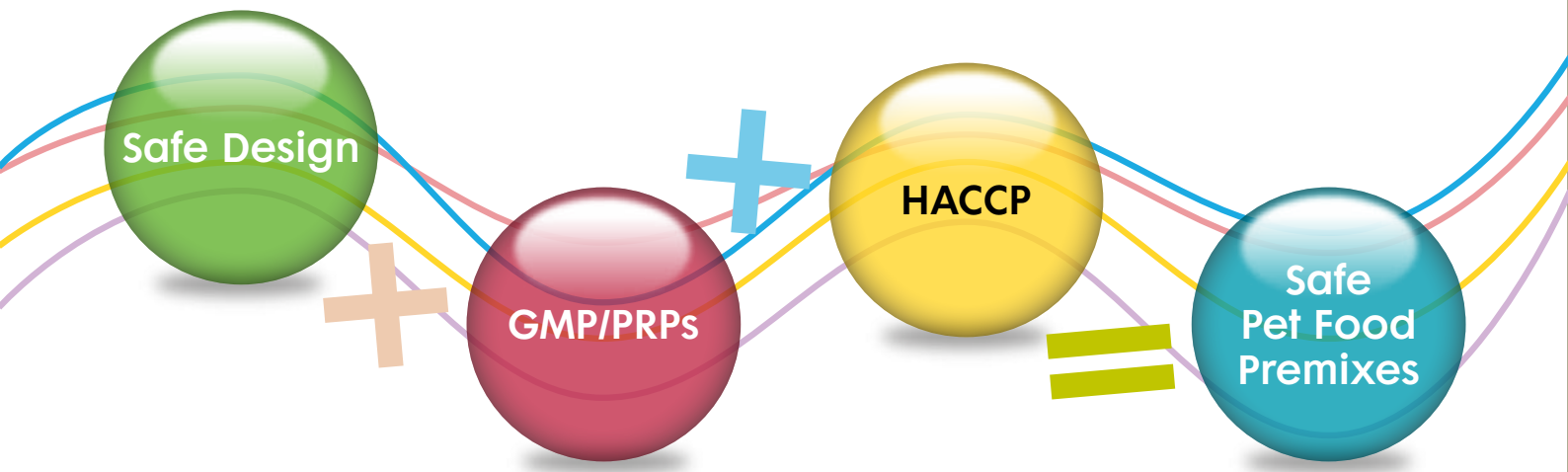
As the leading global supplier of pet food premixes and a key link in the supply chain from manufacturer to feeding bowl, Trouw Nutrition recognises the key role we play in building, maintaining and preserving that trust.

With our reputation as the most responsible of premix suppliers, we recognise the risk to the health of companion animals that can arise through supply of ‘unsafe’ premix. Although typically used at low inclusion levels, a faulty batch of premix could give rise to illness in many animals and require a product recall.

As well as causing distress to pets and their owners, such an incident would result in a loss of trust not just in the individual manufacturer implicated but in the entire industry as a whole.

So what measures does Trouw Nutrition have in place to ensure that this risk never becomes a reality?

## Committed to the supply of safe pet food premixes through a 3 step process



# Ingredient selection and quality assurance

At Trouw Nutrition, everything begins and ends with detail, establishing and adhering to the robust processes that make our operation the world leader in food safety and quality assurance.

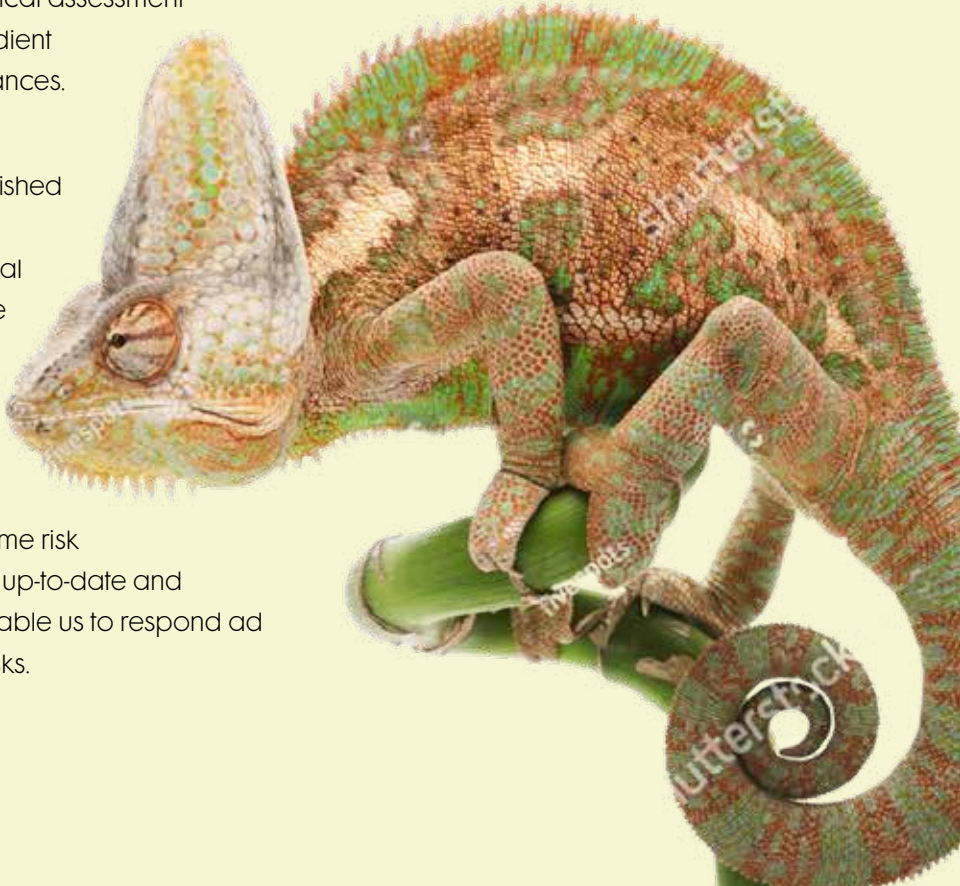
Our first step in the creation of a premix is to agree with the customer an ingredient specification to which all the ingredients involved must conform. We can then establish a product quality agreement to ensure that all selected ingredients, regardless of supplier and source, not only conform to the specified requirements but are also within regulatory limits. And because premixes are added at different quantities and at different stages of production, ingredients are continually checked and re-checked.



This process provides the basis for analytical assessment prior to approval and the ongoing ingredient monitoring to identify ‘undesirable’ substances.

A list of approved supplier-manufacturer combinations for each ingredient is established and used to evaluate intake controls. We have constant access to the Nutreco global ingredient database which holds all of the approval documentation for each and every ingredient used by any Nutreco company.

By strict adherence to these procedures, we can confidently ensure that our real-time risk management processes are fully global, up-to-date and capable of being quickly adapted to enable us to respond ad hoc to any new, emerging food safety risks.





# Ingredient intake controls and storage

Assuring the quality and provenance of ingredients is only the start of the process. The next stage is assuring that ingredients are only ever actually accepted at the point of intake as long as they comply with the standards and documentation requirements set out during the approval process.

## Checking procedures

✓ Ingredient identification

✓ Comparison with reference samples

✓ Packaging & pallet condition

✓ Supplier-to-manufacturer approval

✓ Certificates of conformity

✓ Analysis requirements re sampling plan

✓ History of last 3 deliveries

✓ NIR fingerprinting

✓ One batch per pallet (no mixed pallets)



At Trouw Nutrition, we ensure that all ingredients are given a unique batch number at intake, thereby ensuring that only the correct ingredient will be used, in accordance with the agreed product formulation, and that out-of-date material can be easily identified and rejected.

Every ingredient batch number is recognised throughout our manufacturing process and recorded on our production records, providing full traceability across all ingredients in the premix.

Our Quality System enables our Quality Control (QC) team to check easily what specific analysis is required on a batch of ingredient material when it arrives. Positive release and routine analysis procedures can then be carried out.

Once accepted into the Trouw Nutrition plant, ingredients move to our dedicated storage area which is well-ventilated, securely shielded from exposure to direct sunlight and protected from contamination by a raft of pest control measures.



# Formulation

For the next part of the process – the formulation – expert individual knowledge of ingredients and premixing technology are the most critical factors, and for that reason Trouw Nutrition only employs the most highly qualified personnel.



Each formula is checked at various stages of the formulation process, crucially, by more than one member of the team.

Our formulation and quality teams work closely to check any new formulas (or new versions of existing formulas), trialing new ingredient combinations before they are released for manufacture.

This ensures that only the correct formula ever goes through to the manufacturing stage so that the correct product is made 'right first time', ensuring food safety and eliminating waste.

As well as offering advice on additive and nutritional mixes, our formulation and quality teams can also assist with pet food formulations and labelling.

## Checking procedures

✓ Species & life stage requirements

✓ Potential interactions between ingredients

✓ Handling characteristics

✓ Vitamin stability & losses

✓ Legislation

✓ Ingredient weighments

✓ Premix batch size

✓ Pet food batch size

# Production



How do our customers benefit from having their premix created and manufactured in the UK's most highly-accredited pet premix production facility?

By using techniques developed in the pharmaceutical world, Trouw Nutrition has created a stand-alone pet premix production facility that is not only supremely versatile and highly automated but which provides the ultimate food safety environment.

So the answer is that our customers benefit from the absolute certainty that the premix formulation that has been agreed is the premix formulation that is delivered, 100% tested and verified, 100% precise and accurate and 100% food-safe.

**In short, complete peace of mind.**



**Trouw Nutrition is the only premix supplier in the UK to achieve ISO 22000:2005 Food Safety Standard accreditation.** More commonly found in human food facilities, this HACCP standard covers the entire production chain and enables constant interactive communication of key performance indicators.



**We are also Sedex 4 pillar-accredited.** Independently audited, Sedex covers labour standards, health & safety protocols, environmental management standards, ethical trading assurance and sustainability. For all those reasons, it's an accreditation which is increasingly being demanded by branded retailers.



**Our on-site laboratories offer a one-stop-shop for premix and pet food analysis,** covering NIR fingerprinting, 'undesirable' substances, mycotoxins and accelerated shelf-life testing, using UKAS-accredited methods (ISO 17025:2005). Our sister company, Masterlab, further enhances our in-house analytical capability.

# Quality control and storage of finished products

## We apply a rigorous system of routine pre-release checks to ensure product conformity

Before despatch of the finished product, quality is checked once again to ensure that it complies both with legal requirements and with the standards that we have previously agreed with our customer, and that all Critical Control Point (CCP) and operational pre-requisite procedures have been completed.

At Trouw Nutrition, we ensure that any product that fails to meet all those criteria is placed on hold so that it does not leave the site. Customer-driven positive release can be incorporated which can include analysis at our in-house laboratory facilities.

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## Traceability

Thanks to our unique and bespoke Nutrace® tracking system, Trouw Nutrition is able to tell you where every single particle of your premix comes from, thereby ensuring that nothing dangerous or unexpected can get into your pet food. The Nutrace® system ensures consistency throughout the entire production process, from raw material intake to final product delivery, using five standards:



### Certified Quality & Food Safety

To ensure the consistent formulation and production of high quality, reliable premixes. We have implemented international certifications at our plant including ISO, Sedex and UFAS, as well as internal systems and procedures.



### Ingredient and Supplier Assessment & Management

To ensure that nothing other than healthy, safe and sustainable raw materials are used for premix production, we only use approved ingredients and suppliers, with any new suppliers carefully evaluated before approval.



### Monitoring & Control

To ensure that our premixes are safe, we follow a harmonised and comprehensive global monitoring programme that covers 'undesirable' substances from raw materials to finished premixes. This also includes a rapid alert and follow-up system and an external notification procedure.



### Risk Management


To ensure that the correct procedures are in place for an effective and professional response should an emergency arise, Trouw Nutrition operates a comprehensive integrated risk management, food safety management and crisis management protocol so that correct decisions are made to minimise risks and handle adverse situations.



### Tracking & Tracing

To ensure rapid, efficient information flow between Trouw Nutrition, our suppliers and our customers, the Nutrace® tracking system traces premix batches back into their raw material components, providing accurate and accessible data on all ingredients, production processes and deliveries.



A close-up photograph of a white cat with striking blue eyes. The cat is looking slightly upwards and to the left. It has a red, textured collar around its neck, and a small, realistic-looking globe is hanging from the collar as a pendant. The background is a solid, vibrant pink color.

**For more information  
visit [trouwnutrition.co.uk/  
globalleader](http://trouwnutrition.co.uk/globalleader)**

Trouw Nutrition is a global leader in innovative feed specialities, premixes and technical services for animal nutrition. Quality, innovation and sustainability are the guiding principles behind everything we do – from research and raw material procurement to the delivery of cutting-edge products and services for agriculture.

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 **trouw nutrition**  
a Nutreco company

G L O B A L   L E A D E R   I N   P E T   P R E M I X